Extra FRQ Practice — All Four Official Types

This file builds toward a bank of 21 official-type FRQs covering every AP Business with Personal Finance FRQ type — six Business Canvas Validation prompts ship now (in the Business Canvas Validation Practice file of this companion), and the remaining 15 are indexed below and added with each companion release. In the meantime, this file already contains a full set of chapter-linked FRQs for all 27 print chapters, each with an original scenario and a point-based scoring guideline.

NOTE ON LENGTH: These are *extended* drills — several run longer and carry more sub-parts (and points) than the real exam, which scores Personal Finance and Business Concept Application at just 3 points each (three parts, A–C) and Business Decision at 8 points. They are built for skill-building, not exact exam simulation. For an exam-accurate, point-matched experience, use the full-length practice exam (Appendix E in the print book) and Practice Papers 2 and 3.

Section	FRQ Type	This file
II Part A	Business Canvas Project Exam-Day Validation	6
II Part B	Personal Finance	5
II Part B	Business Concept Application	5
II Part B	Business Decision	5
	Total	**21**

STATUS (THIS RELEASE). The bank is being populated iteratively — see the per-FRQ index below for which prompts are live in this release. Six Business Canvas Validation prompts are in `business_canvas_validation_practice.md` (live now); the remaining FRQ types' prompts are queued.

FRQ template (every prompt follows this exact structure)

```
### [Type] FRQ [#] — [Title]

**Scenario**
[Original scenario — fictional individual, household, or business. Numbers internally consistent.]

**Data**
[Table, chart, financial statement, or customer/budget data as needed.]

**Prompt**
(a) ...
(b) ...
(c) ...
(d) ...

**Scoring guideline (X points)**
| Pt | Sub-part | Criterion |
|---:|----------|-----------|
| 1 | (a) | ... |
| 2 | (b) | ... |
| 3 | (b) | ... |
| 4 | (c) | ... |
| 5 | (d) | ... |
| ... | ... | ... |
```

Index

Business Canvas Project Exam-Day Validation (6)

See `business_canvas_validation_practice.md` for the full set of six prompts and rubrics.

Personal Finance FRQs (5 — scheduled)

#	Topic	Skills tested
PF-1	First-job paycheck and 50/30/20 budget	Skills 1, 3
PF-2	Student-loan payoff vs. 401(k) match	Skills 1, 3
PF-3	Renters insurance, auto insurance, and emergency fund	Skills 1, 3

#	Topic	Skills tested
PF-4	Saving for a house in 5 years	Skills 1, 3
PF-5	Identity-theft response and household risk plan	Skills 1, 3

Business Concept Application FRQs (5 — scheduled)

#	Topic	Skills tested
BCA-1	Coffee shop’s 12-month customer-retention data	Skill 1
BCA-2	Streaming service’s churn dashboard	Skill 1
BCA-3	E-commerce return-rate trend	Skill 1
BCA-4	Regional grocery’s KPI shift	Skill 1
BCA-5	EV-charging operator’s location-mix decision	Skill 1

Business Decision FRQs (5 — scheduled)

#	Topic	Skills tested
BD-1	Bakery: open second location vs. expand catering arm	Skill 3
BD-2	SaaS startup: hire two engineers vs. one product manager	Skill 3
BD-3	Retail: own logistics vs. outsource	Skill 3
BD-4	Manufacturer: switch to recycled inputs vs. continue	Skill 3
BD-5	Restaurant: in-house delivery vs. third-party platform	Skill 3

> The scheduled FRQs above will be populated using the template structure. Each release of the digital companion adds new FRQs until all 21 are live. Email registration at https://synprep.com/ap/ap-business sends new releases as they ship.

Chapter 1 FRQs — What Is a Business?

Free-Response Question 1

Scenario: Jasmine is a high school senior who loves baking. She notices that many of her classmates complain about the lack of affordable, allergy-friendly desserts in their town. The nearest bakery that offers gluten-free and nut-free options is a 30-minute drive away and charges premium prices. Jasmine decides to start a small baking business from her home kitchen, selling allergy-friendly cupcakes and cookies through social media and delivering them locally.

(a) Identify the market opportunity Jasmine has recognized. Explain how her business achieves problem-solution fit. (3 points)

(b) Jasmine's best friend orders a box of cupcakes for her younger brother's birthday party. Identify who is the customer and who is the consumer in this transaction. Explain the difference between these two roles. (3 points)

(c) Jasmine charges $4 per cupcake. Her ingredients, packaging, and delivery costs total $1.50 per cupcake. Distinguish between the value Jasmine creates and the value she captures. Use specific numbers from the scenario. (4 points)

Scoring Guidelines

(a) Market opportunity and problem-solution fit (3 points)

- 1 point: Identifies the market opportunity — there is a gap in the local market for affordable, allergy-friendly desserts. Classmates have an unmet need (EK 1.1.A.3).
- 1 point: Explains that Jasmine's baking business is the solution that directly addresses that gap.
- 1 point: Connects to problem-solution fit — the product (allergy-friendly cupcakes/cookies) matches the specific customer problem (lack of affordable allergy-friendly options nearby).

(b) Customer vs. consumer (3 points)

- 1 point: Identifies the best friend as the customer because she is the one purchasing the cupcakes.
- 1 point: Identifies the younger brother (and/or party guests) as the consumer(s) because they are the ones who will eat the cupcakes.
- 1 point: Explains the distinction — the customer is the purchaser; the consumer is the end user. They are not always the same person (EK 1.1.A.2).

(c) Value creation vs. value capture (4 points)

- 1 point: Defines value creation — providing a product that addresses a customer problem, need, or want (EK 1.1.B.2).
- 1 point: Applies value creation to the scenario — Jasmine creates value by offering allergy-friendly desserts that were previously unavailable locally at an affordable price, solving her classmates' problem.
- 1 point: Defines value capture — charging a price higher than the cost to produce (EK 1.1.B.3).
- 1 point: Applies value capture with numbers — Jasmine charges $4.00 per cupcake and her costs are $1.50, so she captures $2.50 per cupcake in value. This profit margin allows her business to sustain itself financially.

Chapter 2 FRQs — Markets and Competitive Advantage

Free-Response Question 1

Scenario: Marcus wants to open a specialty coffee shop in a mid-size college town. The town already has three coffee shops: a Starbucks, a Dunkin', and a locally owned cafe called "Bean There." Starbucks and Dunkin' offer standardized menus at moderate prices, while Bean There focuses on locally sourced, single-origin beans at premium prices. Marcus plans to differentiate his shop by offering a "study lounge" concept with free high-speed Wi-Fi, noise-canceling study pods, unlimited drip coffee refills for a flat $6/visit fee, and late-night hours (open until 2 a.m.).

(a) Explain how Marcus's college town coffee market demonstrates the characteristics of a differentiated market. Reference at least two ways existing competitors already differentiate from each other. (3 points)

(b) Identify two specific competitive advantages Marcus's "study lounge" concept provides. For each, explain which differentiation lever (quality, features, service, price, or marketing) it represents and why it might attract his target customer segment. (4 points)

(c) Identify one barrier to entry Marcus may face as he tries to enter this market and one barrier that Marcus could eventually build to protect his own business if he succeeds. Explain each. (3 points)

Scoring Guidelines

(a) Differentiated market characteristics (3 points)

- 1 point: Correctly identifies that the coffee market in this town is a differentiated market because multiple sellers offer products that vary in quality, features, service, and/or price (EK 1.2.B.2, 1.2.B.5).
- 1 point: Identifies one way existing competitors differentiate (e.g., Starbucks/Dunkin' offer standardized, moderate-priced menus emphasizing speed and convenience).
- 1 point: Identifies a second way existing competitors differentiate (e.g., Bean There focuses on locally sourced, single-origin, premium-priced coffee, appealing to quality-conscious consumers).

(b) Marcus's competitive advantages (4 points)

- 1 point: Identifies one competitive advantage (e.g., study pods with free Wi-Fi) and names the correct lever (features or service).
- 1 point: Explains why this advantage appeals to his target segment (college students need quiet, comfortable spaces to study with reliable internet; existing competitors do not specialize in this).
- 1 point: Identifies a second competitive advantage (e.g., flat $6 unlimited refills or late-night hours until 2 a.m.) and names the correct lever (price for flat-rate model; features or service for late-night hours).
- 1 point: Explains why this second advantage appeals to his target segment (students often study for hours and want predictable costs; or students need a place to work late at night and no other shop is open that late).

(c) Barriers to entry (3 points)

- 1 point: Identifies a barrier Marcus faces entering the market (e.g., high startup costs for lease, renovations, equipment, and building study pods; or competition from established brands like Starbucks that already have customer loyalty and scale pricing) (EK 1.2.B.6).
- 1 point: Identifies a barrier Marcus could build to protect his own position (e.g., building a strong local brand and loyal customer base; securing an exclusive lease in the best location near campus; or trademarking his "study lounge" concept) (EK 1.2.B.6, 1.2.B.7).

- 1 point: Provides a clear explanation of how either barrier works (e.g., high startup costs mean a new competitor would need significant capital to replicate the study-pod experience; or a prime location lease prevents competitors from opening nearby).

Chapter 3 FRQs — PESTEL Analysis

FRQ 1: PESTEL ANALYSIS OF A FOOD TRUCK EXPANSION

Scenario: Maria owns a successful food truck in Austin, Texas, specializing in organic tacos. She is considering expanding to three new cities: Denver (Colorado), Miami (Florida), and Portland (Oregon). She has asked you to help her evaluate these markets.

(a) Identify ONE political factor and ONE economic factor that Maria should analyze before expanding. Explain how each could affect her food truck business. (4 points)

(b) Maria discovers that Portland has a strong cultural norm of supporting local, sustainable food businesses, while Miami's food scene is dominated by large chain restaurants. Identify the PESTEL factor this represents, and explain how this social difference could influence Maria's expansion decision. (3 points)

(c) Denver recently passed strict new regulations on food truck operations, including mandatory commissary kitchen usage and limited street-vending permits. Identify the PESTEL factor and explain how Maria could respond using ONE of the three common response strategies (adapt, relocate, or advocate). (3 points)

Scoring Guidelines:

(a) 4 points

- 1 point: Correctly identifies a political factor (e.g., local government food truck regulations, licensing requirements, health department mandates, tax policies) (EK 1.3.A.2)
- 1 point: Explains how the political factor affects viability (e.g., strict permitting limits where she can operate, higher licensing costs reduce profitability) (EK 1.3.B.1)
- 1 point: Correctly identifies an economic factor (e.g., household income levels in each city, local cost of living, inflation's effect on ingredient costs) (EK 1.3.A.3)
- 1 point: Explains how the economic factor affects viability (e.g., higher-income areas support premium organic pricing; inflation raises ingredient costs, squeezing profit margins) (EK 1.3.B.3)

(b) 3 points

- 1 point: Correctly identifies this as a Social factor (cultural norms, lifestyle trends) (EK 1.3.A.4)
- 1 point: Explains that Portland's cultural alignment with sustainable/local food supports Maria's organic taco concept (EK 1.3.C.2)
- 1 point: Explains that Miami's chain-dominated culture may make it harder for a small organic food truck to attract customers, or that Maria would need to differentiate more aggressively (EK 1.3.B.5)

(c) 3 points

- 1 point: Correctly identifies this as a Legal factor (food safety regulations, permitting requirements) (EK 1.3.A.7)
- 1 point: Identifies one response strategy (adapt, relocate, or advocate) (EK 1.3.C.3)

- 1 point: Provides a specific, logical explanation of how that strategy would work (e.g., Adapt: budget for commissary kitchen costs and apply early for limited permits; Advocate: join a food truck owners' association to lobby for less restrictive permitting; Relocate: prioritize Portland or Austin expansion instead of Denver)

FRQ 2: PESTEL SHIFTS IN THE STREAMING INDUSTRY

Scenario: StreamVibe is a mid-sized video streaming company competing against Netflix, Disney+, and Amazon Prime Video. The CEO has identified the following recent developments:

- **Development A:** The European Union is considering a law requiring streaming platforms to invest 30% of their revenue in local European content.
- **Development B:** A major recession has caused household incomes to drop by 8% across North America, and consumers are canceling non-essential subscriptions.
- **Development C:** A breakthrough in AI-generated video content has reduced production costs for short-form content by 60%.

(a) For each development (A, B, and C), identify the most relevant PESTEL factor and explain your reasoning. (6 points)

(b) Explain how Development B could affect StreamVibe's business viability differently than it affects Netflix. Use the concept of business model alignment in your answer. (3 points)

(c) Choose ONE of the three developments and recommend a specific strategic response StreamVibe should take. Justify your recommendation by connecting it to the PESTEL evaluation process. (3 points)

Scoring Guidelines:

(a) 6 points (2 points each)

- Development A: 1 point for identifying Legal factor (content investment regulation) (EK 1.3.A.7); 1 point for explaining it is a specific regulatory requirement that mandates business spending (EK 1.3.B.8)
- Development B: 1 point for identifying Economic factor (recession, falling household income) (EK 1.3.A.3); 1 point for explaining it reduces consumer spending on non-essential services (EK 1.3.B.3)
- Development C: 1 point for identifying Technological factor (AI innovation reducing costs) (EK 1.3.A.5); 1 point for explaining the rate of innovation is creating new production capabilities (EK 1.3.B.6)

(b) 3 points

- 1 point: Explains that StreamVibe, as a smaller company, may lack the content library and brand loyalty to retain price-sensitive subscribers during a recession (EK 1.3.C.2)
- 1 point: Explains that Netflix's larger subscriber base, stronger brand, and deeper content library may help it retain more customers even as some cancel (EK 1.3.C.2)
- 1 point: Explicitly connects to business model alignment – the same economic factor affects both companies, but Netflix's model (scale, brand equity, global diversification) is better aligned to withstand recessionary pressures than StreamVibe's (EK 1.3.C.2)

(c) 3 points

- 1 point: Selects one development and proposes a specific, realistic strategic response (EK 1.3.C.3)

- 1 point: Explains *why* this response addresses the PESTEL change (e.g., adopting AI tools to reduce costs addresses the economic pressure on profit margins; partnering with European production studios proactively addresses the legal requirement) (EK 1.3.C.1)
- 1 point: Connects the response to the broader PESTEL evaluation process (e.g., “StreamVibe should reassess market attractiveness in Europe if the content investment law passes, and determine whether the cost of compliance aligns with projected European revenue”) (EK 1.3.C.1, 1.3.C.3)

Chapter 4 FRQs — Entrepreneurship & Business Ideas

FRQ 1: LAUNCHING A STUDENT MEAL-PREP SERVICE

Scenario: Alex is a college junior who noticed that many students on campus skip meals or eat unhealthy fast food because they lack time and cooking skills. Alex is considering starting a weekly meal-prep delivery service targeting college students. The service would offer affordable, pre-portioned, healthy meals delivered to dorm rooms every Sunday.

(a) Identify TWO idea-generation strategies Alex should use to further develop this idea. For each strategy, describe a specific action Alex could take and explain what information it would reveal. (4 points)

(b) Alex estimates it will cost $3,000 to buy initial supplies, packaging, and marketing materials. Explain the entrepreneurial risk Alex faces, and identify TWO specific incentives that might motivate Alex to take this risk despite the possibility of failure. (3 points)

(c) Using the design-thinking process, describe what Alex’s MVP should look like. Identify TWO features that should be included in the MVP and TWO features that should be left out. Justify each decision using the MVP concept. (5 points)

Scoring Guidelines:

(a) 4 points (2 points per strategy)

- 1 point each: Correctly identifies two different strategies from EK 1.4.A.2 (observing, interviewing, surveying, market/technical research, experimentation)
- 1 point each: Describes a specific action and what it would reveal
  - Example – Surveying: Alex creates a Google Form asking 100 students about their eating habits, how much they spend on food weekly, and whether they would pay $8-10 per meal for healthy pre-made options. This reveals whether price point and demand are viable.
  - Example – Interviewing: Alex has 15-minute conversations with 20 students in the dining hall about their biggest frustrations with campus food. This reveals specific pain points (cost, variety, dietary restrictions) to design around.
  - Example – Experimentation: Alex makes 10 meals and gives them to friends and floormates, then collects feedback. This reveals whether the food quality and packaging meet expectations.

(b) 3 points

- 1 point: Explains risk – Alex must invest $3,000 (plus time and effort) before earning any revenue, with no guarantee that students will buy the meals or that the business will generate profits (EK 1.4.B.1)
- 1 point each (x2): Identifies two incentives from EK 1.4.B.2:
  - Future profits: If the service gains traction, Alex could earn significant income while still in school

  - Problem-solving satisfaction: Alex genuinely wants to help students eat healthier
  - Passion: Alex enjoys cooking and meal planning and wants to turn a personal interest into a business

(c) 5 points

- 1 point: Describes a clear MVP concept – the simplest version that tests the core value proposition (e.g., offering 3 meal options, delivered to one dorm building, for one week, to 15-20 customers)
- 1 point each (x2): Identifies two features to include with justification
  - Example: A simple online order form (needed so customers can select and pay)
  - Example: 3 meal options (minimum variety needed to test whether different preferences exist)
  - Justification must connect to “core feature needed to test the hypothesis” (EK 1.4.C.3)
- 1 point each (x2): Identifies two features to leave out with justification
  - Example: A custom mobile app (a Google Form works for MVP; the app can come later)
  - Example: Delivery to all campus buildings (start with one building to manage logistics before scaling)
  - Example: Dietary customization for every allergy (offer a few standard options first; customize later based on demand)
  - Justification must connect to “not needed to test core hypothesis; can be added after validation” (EK 1.4.C.3)

Chapter 5 FRQs — Vision, Mission & Goals

Scenario: Sunrise Juice Co.

Sunrise Juice Co. is a small business that presses fresh juice from locally grown fruits. The founder, Maria, started the company because she believes everyone deserves access to healthy, affordable food. Her team of five employees includes a production manager with expertise in cold-press techniques and an operations specialist who has built relationships with twelve local farms.

Maria is considering whether Sunrise Juice Co. should operate as a traditional for-profit business, a social enterprise, or a nonprofit organization. She has drafted the following statements:

- Statement 1: “To create a future where nutritious food is not a luxury.”
- Statement 2: “We press and deliver fresh, locally sourced juice to families and schools in the Austin area at affordable prices.”

(a) Identify one core value and one core competency of Sunrise Juice Co. Explain how each influences the company’s decisions. (4 points)

(b) Identify which statement is the vision statement and which is the mission statement. Explain one key difference between the two. (3 points)

(c) Maria wants to donate 20% of juice production to low-income schools while still earning enough profit to pay her employees and grow the business. Identify which organization type best fits this model. Explain how this type differs from the other two organization types in its approach to profit and surplus. (4 points)

Scoring Guidelines

(a) 4 points

- 1 point: Identifies a core value (e.g., belief that everyone deserves access to healthy, affordable food; commitment to local sourcing).
- 1 point: Explains how that core value guides decisions (e.g., choosing to keep prices affordable rather than maximize profit margins; sourcing only from local farms).
- 1 point: Identifies a core competency (e.g., cold-press expertise; strong relationships with local farms).
- 1 point: Explains how that core competency influences decisions (e.g., cold-press expertise allows production of higher-quality juice than competitors; farm relationships ensure consistent, fresh supply).

(b) 3 points

- 1 point: Correctly identifies Statement 1 as the vision statement.
- 1 point: Correctly identifies Statement 2 as the mission statement.
- 1 point: Explains the key difference (vision expresses aspirations and the ideal future; mission describes what the business currently does and how it operates).

(c) 4 points

- 1 point: Identifies social enterprise as the best fit.
- 1 point: Explains that a social enterprise pursues both profit and social objectives (donating juice to schools is the social objective; earning revenue from sales is the profit objective).
- 1 point: Explains how this differs from a traditional business (traditional business focuses primarily on profit for owners, without a built-in social mission).
- 1 point: Explains how this differs from a nonprofit (nonprofit reinvests all surplus into the mission and does not distribute profit to owners; Sunrise Juice Co. intends to earn profit while also serving a social goal).

Chapter 6 FRQs — Business Ethics

Scenario: GreenGlow Candles

GreenGlow Candles is a small business that sells handmade candles made from natural soy wax. The company's core values include environmental sustainability, honesty, and community support. Its vision statement is "To light up every home with clean, natural products that respect our planet."

GreenGlow recently received a large order from a national retailer. To fulfill it, the company would need to switch from its current soy wax supplier (a local farm that uses sustainable practices but charges premium prices) to a cheaper industrial supplier whose environmental practices are unknown. The switch would allow GreenGlow to fill the order, earn significant profit, and gain national exposure. However, it would mean the candles may no longer be fully "natural" or "sustainable" as marketed.

The owner, David, is trying to decide what to do.

(a) Identify one example of an incentive structure that could push David toward unethical behavior in this situation. Then describe one tool David could use within his company to help prevent unethical decisions like this one. (3 points)

(b) Explain why this situation qualifies as an ethical dilemma according to the framework definition. Identify the specific core value conflict. (2 points)

(c) Conduct a stakeholder impact analysis. Identify two internal stakeholders and two external stakeholders. For each, explain one potential impact of switching to the cheaper supplier. (4 points)

(d) Using either the cost-benefit approach or the vision-consistent approach, recommend a course of action for David. Justify your recommendation by explaining how it addresses the interests of at least two stakeholder groups. (3 points)

Scoring Guidelines

(a) 3 points

- 1 point: Identifies a relevant incentive structure (e.g., the large potential profit from the national order creates financial incentive to compromise environmental standards; the opportunity for national exposure rewards growth over values).
- 1 point: Identifies a relevant tool (code of conduct, ethics training, repercussions, or leadership modeling).
- 1 point: Describes how the tool could help (e.g., a code of conduct could include a rule that all suppliers must meet verified sustainability standards, which would make the decision clear before it becomes tempting).

(b) 2 points

- 1 point: Explains that an ethical dilemma occurs when a core value conflicts with other values or goals.
- 1 point: Identifies the specific conflict (e.g., the core value of environmental sustainability/honesty conflicts with the business goal of growth/profit; or honesty in marketing conflicts with the goal of fulfilling the large order with a potentially non-natural product).

(c) 4 points (1 point each for correctly identifying a stakeholder and explaining one impact)

- 1 point: Internal stakeholder 1 (e.g., *Owner David*: earns more profit but risks brand reputation if sustainability claims are false).
- 1 point: Internal stakeholder 2 (e.g., *Employees*: may benefit from business growth and job security but may feel conflicted about working for a company that compromises its stated values).
- 1 point: External stakeholder 1 (e.g., *Customers*: receive a potentially misleading product if "natural" claims are not met; trust is damaged if the switch is discovered).
- 1 point: External stakeholder 2 (e.g., *Community/environment*: environmental impact depends on the new supplier's practices; the local sustainable farm loses a major client).

(d) 3 points

- 1 point: Clearly states a recommendation (e.g., David should decline the order, negotiate for more time, or find a sustainable way to scale production).
- 1 point: Uses either cost-benefit reasoning (weighing long-term brand damage against short-term profit) or vision-consistent reasoning (the switch contradicts "clean, natural products that respect our planet").
- 1 point: Connects the recommendation to at least two stakeholder groups (e.g., protects customer trust and preserves community/environmental commitments; or protects brand reputation for the owner while maintaining employee pride and morale).

Chapter 7 FRQs — Organization & Structure

FRQ 1: CHOOSING A BUSINESS STRUCTURE

Scenario: Three college friends – Alex, Jordan, and Sam – want to start a mobile car-detailing business. Alex has $15,000 in savings to invest. Jordan has marketing experience and a large social media following. Sam is a trained auto detailer. They plan to start small but hope to eventually expand to multiple cities and possibly attract outside investors.

(a) Identify ONE type of business structure that would be appropriate for the initial launch of this business. Explain why it fits their situation. (2 points)

(b) The friends are considering a general partnership. Explain ONE financial risk that a general partnership creates for each of the three friends. (2 points)

(c) Assume the business grows rapidly and the friends want to raise $500,000 from outside investors. Explain why they would likely need to change their business structure, and identify which structure would best support this goal. (3 points)

(d) Describe how the three friends could divide roles based on their individual strengths. (2 points)

Scoring Guidelines:

(a) 2 points

- 1 point for identifying a reasonable structure (LLC or partnership)
- 1 point for a correct explanation. For LLC: provides liability protection while allowing flexible management among three owners (EK 1.7.A.1, 1.7.A.3). For partnership: allows them to pool resources and share responsibilities (EK 1.7.A.1, 1.7.B.2).

(b) 2 points

- 1 point for identifying unlimited personal liability as the key risk (EK 1.7.A.3)
- 1 point for explaining that each partner is personally liable for ALL business debts, not just their own share – meaning Alex's $15,000 savings, Jordan's personal assets, and Sam's personal assets are all at risk, even for debts incurred by another partner.

(c) 3 points

- 1 point for explaining that partnerships and LLCs have limited ability to raise large amounts of capital (EK 1.7.A.2)
- 1 point for identifying corporation as the best structure for raising outside investment (EK 1.7.A.4)
- 1 point for explaining that corporations can sell shares of stock to investors, giving the business much greater access to funding while making the company – not the founders personally – liable for business obligations.

(d) 2 points

- 1 point for connecting at least two friends to appropriate roles based on stated strengths (EK 1.7.B.2)
- 1 point for explaining the logic: Alex (finance/accounting – contributed the capital and has financial stake), Jordan (sales & marketing – has marketing experience and social media following), Sam (operations –

trained detailer handles service delivery). Accept any reasonable division that matches stated skills to business functions.

FRQ 2: DEPARTMENTAL FUNCTIONS IN A GROWING COMPANY

Scenario: FreshBowl is a fast-casual restaurant chain that serves customizable grain bowls. The company has grown from one location to 40 locations across six states. FreshBowl's CEO is restructuring the company into formal departments.

(a) Identify THREE departments that would be most critical for FreshBowl at this stage of growth, and explain the primary function of each. (6 points)

(b) FreshBowl currently handles payroll in-house, but the CEO is considering outsourcing it to an external payroll company. Provide ONE argument in favor of outsourcing this function AND one argument against it. (2 points)

(c) Explain the difference between the role of the Accounting department and the Finance department at FreshBowl. Use a specific example relevant to a restaurant chain for each. (2 points)

Scoring Guidelines:

(a) 6 points (2 points per department: 1 for identification, 1 for correct function)

- Accept any three of the six departments (EK 1.7.D.1-D.6). Strong answers for FreshBowl might include:
  - **Operations** (EK 1.7.D.3): Manages food sourcing, kitchen processes, quality control, and logistics across 40 locations. Ensures consistent bowl quality at every store.
  - **HR** (EK 1.7.D.6): Recruits, hires, and trains hundreds of employees across 40 locations. Manages benefits, scheduling, and labor law compliance.
  - **Sales & Marketing** (EK 1.7.D.1): Promotes the FreshBowl brand, runs social media and advertising campaigns, and drives customer traffic to all locations.
  - **Finance** (EK 1.7.D.5): Plans budgets for new locations, analyzes which markets to expand into, and manages cash flow across 40 stores.
  - **Accounting** (EK 1.7.D.4): Tracks revenue and expenses across all locations, prepares financial statements, handles tax filings.
  - **R&D** (EK 1.7.D.2): Develops new menu items, tests seasonal bowls, and innovates recipes to stay competitive.

(b) 2 points

- 1 point for a valid argument FOR outsourcing: An external payroll company has specialized expertise (EK 1.7.C.4, 1.7.C.3), reduces errors, ensures tax compliance, and frees FreshBowl to focus on its core competency of making food.
- 1 point for a valid argument AGAINST outsourcing: Loss of direct control over a sensitive function, potential data security risks with employee information, ongoing costs, or reduced flexibility in making quick payroll changes.

(c) 2 points

- 1 point for Accounting: Records past financial transactions. Example: The accounting team at FreshBowl tracks how much each of the 40 stores spent on ingredients last quarter and prepares tax filings. (EK 1.7.D.4)

- 1 point for Finance: Makes forward-looking financial decisions. Example: The finance team at FreshBowl analyzes whether the company should invest $2 million to open five new locations in Texas next year, projecting revenue and calculating the expected ROI. (EK 1.7.D.5)

Chapter 8 FRQs — Supply Chains

FRQ 1: SUPPLY CHAIN STRATEGY FOR A GROWING COFFEE COMPANY

Scenario: BrewLocal is a small coffee company based in Portland, Oregon. It currently sources beans from a single farm in Colombia, roasts them in-house in small batches, and sells bags of whole-bean coffee at local farmers' markets and through its website. BrewLocal prides itself on exceptional quality and has built a loyal customer base willing to pay $22 for a 12-ounce bag.

The company is now considering two growth paths:

- **Option A:** Partner with a national grocery chain to sell BrewLocal in 500 stores across the western United States.
- **Option B:** Launch an exclusive subscription service and sign an exclusive sourcing agreement with the Colombian farm to prevent competitors from accessing those specific beans.

(a) Identify BrewLocal's current production process (artisan or mass production) and explain TWO reasons why this classification fits. (3 points)

(b) Trace BrewLocal's current goods supply chain from raw materials to customer. Identify each stage. (3 points)

(c) If BrewLocal chooses Option A (national grocery chain), explain how its supply chain and production process would need to change. Identify the competitive strategy this option represents. (4 points)

(d) If BrewLocal chooses Option B (exclusive subscription), identify the competitive strategy this represents and explain how the exclusive sourcing agreement creates a competitive advantage. (3 points)

(e) Identify ONE risk factor BrewLocal faces by relying on a single farm in Colombia as its sole supplier. (1 point)

Scoring Guidelines:

(a) 3 points

- 1 point for identifying artisan production (EK 1.8.A.1)
- 2 points for two valid reasons (1 point each). Accept: small-batch roasting, limited scale, emphasis on quality/uniqueness, sold at local markets (not mass retail), premium pricing ($22/bag), single-origin sourcing.

(b) 3 points (partial credit for incomplete chains)

- 1 point for identifying raw materials: Coffee beans grown on a Colombian farm
- 1 point for manufacturing: Beans roasted in-house in Portland
- 1 point for distribution and customer: Sold at farmers' markets (direct to customer) and shipped via website (distribution to customer). Accept reasonable variations. Warehousing may be minimal or combined with the roasting facility.

(c) 4 points

- 1 point for explaining production must shift toward mass production – larger batches, more automation, higher volume to supply 500 stores (EK 1.8.A.1, 1.8.C.1)
- 1 point for explaining supply chain changes: need multiple suppliers (not just one farm), larger warehouse/distribution network, partnerships with grocery chain's distribution system (EK 1.8.B.2)
- 1 point for identifying the competitive strategy as low-price or scaling strategy (EK 1.8.C.1) – selling in grocery stores requires competitive pricing and high volume
- 1 point for noting a relevant trade-off: BrewLocal may sacrifice quality or brand exclusivity in pursuit of volume and wider distribution

(d) 3 points

- 1 point for identifying barrier strategy (EK 1.8.C.3)
- 1 point for explaining that an exclusive agreement with the Colombian farm prevents competitors from sourcing the same beans, making the product impossible to replicate
- 1 point for explaining how the subscription model further strengthens the barrier by creating a direct relationship with customers and locking in recurring revenue, reducing competitors' access to both the supply (beans) and the distribution (direct-to-consumer channel)

(e) 1 point

- 1 point for identifying a valid risk (EK 1.8.B.4): crop failure due to weather/disease, political instability in Colombia, transportation disruption, the farm going out of business, price increases from a single-source supplier with no alternatives. Accept any reasonable risk factor tied to supplier dependency.

Chapter 9 FRQs — Marketing & Customer Data

FRQ 1: Sunrise Smoothie Co.

Sunrise Smoothie Co. is a new smoothie business opening near a large university campus. The owner, Marcus, wants to use data to guide his marketing decisions. He has a limited budget and needs to make every dollar count.

(a) Define marketing and explain two reasons why Marcus should collect customer data before launching his business. *(3 points)*

(b) Identify one demographic variable and one psychographic variable Marcus could collect. For each, explain how it would help him make a specific business decision. *(4 points)*

(c) Marcus is deciding between two marketing strategies:

- **Strategy A:** Place ads in the city's main newspaper, reaching 200,000 readers
- **Strategy B:** Run targeted Instagram ads reaching 15,000 users who match his customer profile

Explain why Strategy B is likely more effective and less costly than Strategy A. *(2 points)*

(d) After six months, Marcus has spent $4,500 on marketing and gained 300 new customers. Calculate his customer acquisition cost. If his average customer visits twice per week and spends $9 per visit for one year, calculate the customer lifetime value. Based on these numbers, evaluate whether Marcus's marketing spending is justified. *(4 points)*

SCORING GUIDELINES – FRQ 1

(a) 3 points

- 1 point: Defines marketing as identifying customer problems/needs/wants and promoting, selling, and delivering products to satisfy them.
- 1 point each (max 2): Explains two reasons for collecting data, such as: determining which customers to serve, deciding which products to offer, or measuring marketing effectiveness. *(EK 2.1.A.1, 2.1.A.2)*

(b) 4 points

- 1 point: Identifies a demographic variable (age, sex, income, location, etc.).
- 1 point: Explains how that variable helps a specific decision (e.g., "Knowing most students are 18–22 helps Marcus decide on portion sizes and price points that fit a student budget").
- 1 point: Identifies a psychographic variable (interests, values, lifestyle, activities).
- 1 point: Explains how that variable helps a specific decision (e.g., "Knowing students value health and fitness helps Marcus emphasize protein add-ins and post-workout ingredients in his marketing"). *(EK 2.1.A.3)*

(c) 2 points

- 1 point: Strategy B delivers the message to users who match the customer profile (target customers), making it more likely to convert viewers into buyers.
- 1 point: Strategy B costs less because targeted digital ads are cheaper per impression than newspaper ads, and the audience is more relevant, reducing wasted spending. *(EK 2.1.B.4)*

(d) 4 points

- 1 point: CAC = $4,500 / 300 = $15 per customer. *(EK 2.1.C.2)*
- 1 point: CLV = $9 x 2 visits/week x 52 weeks = $936 per customer. *(EK 2.1.C.3)*
- 1 point: Identifies that CLV ($936) is significantly higher than CAC ($15).
- 1 point: Concludes that Marcus's marketing spending is justified because each customer generates far more revenue than the cost to acquire them.

FRQ 2: DataSecure Dilemma

TrendStyle is an online fashion retailer that collects extensive customer data, including purchase history, browsing behavior, body measurements, home addresses, and payment information. TrendStyle uses this data to provide personalized product recommendations and targeted email campaigns.

(a) Identify two digital tools TrendStyle likely uses to collect customer data. *(2 points)*

(b) Explain how TrendStyle could use the collected data to build a customer profile. Include at least one demographic element and one psychographic element in your response. *(3 points)*

(c) TrendStyle is considering selling anonymized customer browsing data to a third-party advertising company. Explain one potential benefit and one potential risk of this decision. *(2 points)*

(d) A data breach exposes the personal information of 500,000 TrendStyle customers. Explain two consequences TrendStyle might face as a result of the breach, and describe one action TrendStyle should take to rebuild customer trust. *(3 points)*

SCORING GUIDELINES – FRQ 2

(a) 2 points

- 1 point each: Identifies two digital tools from the following: online account registration data, click-tracking/browsing analytics, email subscriber lists, app usage data, social media analytics. *(EK 2.1.A.4)*

(b) 3 points

- 1 point: Explains how data helps build a customer profile (a fictional composite description of the target customer).
- 1 point: Includes a demographic element (e.g., age range, income level, geographic location drawn from account data).
- 1 point: Includes a psychographic element (e.g., fashion preferences, values around sustainability, lifestyle inferred from browsing patterns). *(EK 2.1.B.3)*

(c) 2 points

- 1 point: Identifies a benefit (e.g., additional revenue stream, ability to fund better services for customers, improved ad targeting that benefits customers).
- 1 point: Identifies a risk (e.g., privacy violation if consent was not given, loss of customer trust, potential legal penalties). *(EK 2.1.D.1, 2.1.D.3)*

(d) 3 points

- 1 point each (max 2): Identifies consequences such as: loss of customer trust, legal liability/fines, financial costs of remediation, damaged brand reputation, loss of customers to competitors. *(EK 2.1.D.2)*
- 1 point: Describes an action to rebuild trust, such as: notifying affected customers promptly, offering free credit monitoring, investing in stronger cybersecurity, being transparent about what happened and how it will be prevented in the future. *(EK 2.1.D.3)*

Chapter 10 FRQs — Consumer Behavior & Cialdini's Principles of Influence

FRQ 1: The Sneaker Drop

StreetKicks is an online sneaker retailer that releases limited-edition collaborations with popular artists. For its latest release, StreetKicks produced only 2,000 pairs, announced the drop date two weeks in advance on social media, partnered with a well-known basketball player for promotion, and offered early access to members of its "Kicks Crew" loyalty program.

(a) Identify and explain two of Cialdini's principles of influence that StreetKicks is using in this product launch. For each principle, cite a specific detail from the scenario. *(4 points)*

(b) Explain how social/cultural factors might influence a consumer's decision to purchase a pair of StreetKicks limited-edition sneakers. Provide one specific example. *(2 points)*

(c) A consumer originally planned to buy a pair but discovers they are sold out. The consumer then purchases a different limited sneaker from a competitor instead.

- Identify the type of product the competitor's sneaker represents. *(1 point)*
- Explain one situational factor that could have influenced the consumer's decision to buy the competitor's product. *(1 point)*

(d) StreetKicks notices that 80% of its "Kicks Crew" members who received early access made a purchase, compared to only 35% of non-members. Using Cialdini's principles, explain why the Kicks Crew members had a significantly higher purchase rate. Reference at least two principles in your answer. *(4 points)*

SCORING GUIDELINES – FRQ 1

(a) 4 points (2 points per principle: 1 for identification, 1 for explanation with scenario detail)

Acceptable principles and connections:

- **Scarcity:** Only 2,000 pairs were produced, creating limited availability that increases perceived value and urgency. *(EK 2.2.C.2)*
- **Authority:** Partnership with a well-known basketball player lends credibility and aspirational status to the product. *(EK 2.2.C.3)*
- **Unity:** The "Kicks Crew" loyalty program creates an in-group identity, making members feel part of an exclusive community. *(EK 2.2.C.8)*
- **Consistency:** Members of the Kicks Crew have already committed to the brand through membership, making them more likely to follow through with a purchase that aligns with their self-image as loyal StreetKicks customers. *(EK 2.2.C.7)*

(b) 2 points

- 1 point: Identifies a relevant social/cultural factor (peers, family, social status, cultural norms, or media).

- 1 point: Provides a specific example (e.g., "The consumer's friends all post their sneaker collections on Instagram, creating peer pressure to own the latest release" or "Sneaker culture on social media makes owning limited editions a status symbol among the consumer's social group"). *(EK 2.2.A.5)*

(c) 2 points

- 1 point: Identifies the competitor's sneaker as a **substitute product** – an alternative that satisfies the same want when the preferred product is unavailable. *(EK 2.2.B.2)*
- 1 point: Explains a situational factor such as **availability** (the competitor's product was in stock when StreetKicks was not), **timing** (the consumer was ready to buy and encountered the competitor at the right moment), or **store/website design** (the competitor's site featured the sneaker prominently). *(EK 2.2.A.6)*

(d) 4 points

- 1 point: Identifies a first relevant principle (e.g., consistency or unity).
- 1 point: Explains how it applies. For **consistency**: Kicks Crew members had already committed to the brand by joining the program, and purchasing aligns with their established behavior and identity. For **unity**: Membership creates shared group identity, and buying the product reinforces belonging. *(EK 2.2.C.7 or 2.2.C.8)*
- 1 point: Identifies a second relevant principle (e.g., reciprocity or scarcity).
- 1 point: Explains how it applies. For **reciprocity**: Early access is a gift/benefit that members feel obligated to take advantage of. For **scarcity**: With only 2,000 pairs and early access creating a narrower window, scarcity pressure is amplified for members who know the product may sell out. *(EK 2.2.C.6 or 2.2.C.2)*

FRQ 2: The Evolving Coffee Consumer

Twenty years ago, most Americans bought pre-ground coffee at a grocery store and brewed it at home. Today, specialty coffee shops are on every corner, coffee subscription services deliver beans to your door, and apps let you order and pay before you even walk into the store.

(a) Define purchasing pattern and explain how the purchasing pattern for coffee has changed over the past two decades. Address at least two of the three components of a purchasing pattern in your answer. *(3 points)*

(b) Explain how technology has contributed to the changes in coffee purchasing patterns. Provide two specific examples of technologies and their effects. *(4 points)*

(c) A state passes a law banning single-use coffee cups in restaurants and coffee shops, effective January 1.

- Explain how this law could affect coffee consumers' purchasing patterns. *(1 point)*
- Identify one substitute product that might see increased demand as a result of this law. *(1 point)*

(d) A local coffee shop wants to convert first-time visitors into regular customers. Recommend two of Cialdini's principles the shop could use, and describe a specific tactic for each that would encourage repeat visits. *(4 points)*

SCORING GUIDELINES – FRQ 2

(a) 3 points

- 1 point: Defines purchasing pattern as the timing, frequency, and quantity of consumer purchases. *(EK 2.2.B.1)*

- 1 point each (max 2): Explains how two components changed. For example:
  - **Frequency**: Consumers purchase coffee more frequently now – daily stops at coffee shops versus weekly grocery store trips for ground coffee.
  - **Timing**: Consumers can now purchase at any time via apps and delivery services, not just during store hours.
  - **Quantity**: Individual servings purchased daily have replaced bulk purchases of ground coffee.

(b) 4 points (2 per example: 1 for identifying the technology, 1 for explaining its effect)

Acceptable examples:

- **Smartphone apps** (e.g., Starbucks app) enable mobile ordering and payment, reducing wait times and increasing purchase frequency. *(EK 2.2.B.3)*
- **E-commerce** / **internet** enables coffee subscription services (e.g., Trade Coffee) that deliver directly to homes, changing the purchasing location from store to online. *(EK 2.2.B.3)*
- **Social media** allows specialty coffee shops to market directly to consumers, raising awareness and driving foot traffic.
- **Mobile payment technology** (Apple Pay, contactless) makes transactions faster and more convenient, lowering the friction for each purchase.

(c) 2 points

- 1 point: Explains the effect on purchasing patterns (e.g., consumers may reduce the frequency of coffee shop visits, shift to bringing reusable cups from home, or switch to coffee shops that offer reusable-cup programs). *(EK 2.2.B.2)*
- 1 point: Identifies a substitute product (e.g., reusable travel mugs, at-home brewing equipment, coffee shops that use washable ceramic cups). *(EK 2.2.B.2)*

(d) 4 points (2 per principle: 1 for identifying the principle, 1 for a specific tactic)

Acceptable answers include any two of the following:

- **Reciprocity:** Offer every first-time visitor a free pastry or a complimentary extra shot of espresso. The gift creates a sense of obligation to return. *(EK 2.2.C.6)*
- **Consistency:** Give first-time visitors a punch card with the first stamp already filled in. Having started the card, customers feel committed to completing it. *(EK 2.2.C.7)*
- **Liking:** Train baristas to learn customers' names and engage in friendly conversation. Personal connection builds affinity and makes the shop feel like a "third place." *(EK 2.2.C.5)*
- **Unity:** Create a "regulars club" or community board that makes returning customers feel like they belong to the shop's community. *(EK 2.2.C.8)*
- **Scarcity:** Offer a rotating "weekly special" drink available only that week, giving customers a reason to return before it is gone. *(EK 2.2.C.2)*
- **Consensus:** Display a sign saying "Over 500 coffees served this week" or feature testimonials from loyal customers. *(EK 2.2.C.4)*

Chapter 11 FRQs — Market Research

FRQ 1: The Smoothie Truck

Maya wants to launch a smoothie food truck near a college campus. She has $8,000 in savings and access to a commercial kitchen. Before investing, she decides to conduct market research.

(a) Define market research and explain why Maya should conduct it before launching her food truck. *(3 points)*

(b) Maya's friend suggests she "just ask people on campus if they'd buy a smoothie." Identify TWO problems with this approach and explain how Maya could design better research. *(4 points)*

(c) Describe ONE secondary source and ONE primary research method Maya should use. For each, explain what specific information it would provide. *(4 points)*

(d) Evaluate Maya's smoothie truck idea using the desirability, feasibility, and viability framework. For each factor, identify ONE question Maya's research should answer. *(3 points)*

Scoring Guidelines:

(a) 3 points

- 1 point: Defines market research as the systematic process of gathering, analyzing, and interpreting data about a market, customers, and competitors (EK 2.3.A.1)
- 2 points: Explains why – reduces risk of investing $8,000 in a business that might fail; helps her understand if there is demand, who her customers are, what they want, and whether the business can be profitable (EK 2.3.A.1, 2.3.A.3)

(b) 4 points

- 1 point: Identifies Problem 1 – the sample may not be representative (asking random people, not targeting likely customers) (EK 2.3.C.8)
- 1 point: Identifies Problem 2 – "Would you buy a smoothie?" is vague and may produce unreliable responses (no price point, no specific product, hypothetical rather than observed behavior) (EK 2.3.C.8)
- 2 points: Describes better research design – e.g., a structured survey with specific questions about price sensitivity, flavor preferences, and purchase frequency, administered to a representative sample of college students (EK 2.3.C.1, 2.3.C.8)

(c) 4 points

- 1 point: Identifies a relevant secondary source (e.g., Census Bureau data on the area's population and demographics, an IBISWorld report on the smoothie/juice industry, or a university study on college student eating habits) (EK 2.3.B.1)
- 1 point: Explains what information the secondary source provides (e.g., market size, growth trends, demographic data) (EK 2.3.B.3)
- 1 point: Identifies a relevant primary research method (e.g., survey, observation, A/B testing flavor options) (EK 2.3.C.1-C.6)

- 1 point: Explains what information the primary method provides (e.g., willingness to pay, preferred flavors, peak demand times) (EK 2.3.C.1-C.6)

(d) 3 points

- 1 point: Desirability – e.g., "Do enough college students want smoothies to sustain a food truck?" (problem-solution fit) (EK 2.3.A.3)
- 1 point: Feasibility – e.g., "Can Maya produce enough smoothies with her kitchen access and $8,000 budget?" (capacity to produce) (EK 2.3.A.3)
- 1 point: Viability – e.g., "Will revenue from smoothie sales exceed the costs of ingredients, truck rental, and labor?" (profitability) (EK 2.3.A.3)

FRQ 2: Visualizing the Data

TechGlow, a small company that sells LED desk lamps, has collected the following data from market research:

- **Data Set 1:** Quarterly revenue for the past two years (8 quarters)
- **Data Set 2:** Revenue breakdown by product line (Standard, Premium, and Kids) for each quarter
- **Data Set 3:** Market share comparison – TechGlow vs. three competitors in the current quarter
- **Data Set 4:** Customer satisfaction survey results showing the percentage of respondents who rated the product "Excellent," "Good," "Fair," or "Poor"

(a) For each data set, identify the most appropriate chart type (bar chart, stacked bar chart, line graph, or pie chart) and justify your choice in one sentence. *(8 points)*

(b) The marketing team proposes using a pie chart to display Data Set 1 (quarterly revenue over eight quarters). Explain why this would be an inappropriate choice and what misinterpretation it could cause. *(3 points)*

(c) Explain how data visualizations help TechGlow communicate its market research findings more effectively than presenting raw numbers alone. *(2 points)*

Scoring Guidelines:

(a) 8 points (2 per data set: 1 for correct chart, 1 for justification)

- Data Set 1: **Line graph** – best for showing trends over a continuous time period (8 quarters) (EK 2.3.D.4, EK 2.3.D.5)
- Data Set 2: **Stacked bar chart** – shows total quarterly revenue AND the breakdown by product line (subcategories within categories) (EK 2.3.D.3)
- Data Set 3: **Bar chart** – best for comparing values across distinct categories (TechGlow vs. competitors) (EK 2.3.D.2)
- Data Set 4: **Pie chart** – shows part-to-whole relationship (percentage of respondents in each satisfaction category) (EK 2.3.D.6)

(b) 3 points

- 1 point: Pie charts show part-to-whole relationships, but quarterly revenue is a trend over time, not parts of a single whole (EK 2.3.D.6, EK 2.3.D.4)
- 1 point: A pie chart would obscure the time sequence – you cannot see whether revenue is increasing or decreasing over the eight quarters

- 1 point: Misinterpretation – viewers might think each quarter's revenue is a proportion of a fixed total, rather than an independent measurement that changes over time

(c) 2 points

- 1 point: Visualizations make patterns, trends, and comparisons immediately visible, which is harder to detect in tables of raw numbers (EK 2.3.D.1)
- 1 point: They enable faster, more informed decision-making by stakeholders who may not have time to analyze spreadsheets or statistical reports

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Chapter 12 FRQs — Product Development & Branding

FRQ 1: BrightPath Tutoring App

Three college students have an idea for a tutoring app called BrightPath that connects high school students with affordable, peer-based tutoring. They have completed ideation and believe the idea is promising.

(a) Describe the validation stage of product development and explain what a Minimum Viable Product (MVP) for BrightPath might look like. *(3 points)*

(b) Write a value proposition for BrightPath using the who/what/how framework. *(3 points)*

(c) Explain TWO specific decisions the BrightPath team would need to make during the design stage and TWO decisions they would face during the production stage. *(4 points)*

(d) Describe TWO actions the BrightPath team should take during the launch stage to reach their target market segment. *(2 points)*

Scoring Guidelines:

(a) 3 points

- 1 point: Defines validation as the stage where the business tests whether the idea has real market potential (EK 2.4.A.3)
- 1 point: Explains that validation involves creating an MVP – the simplest version of the product that can be tested with real users (EK 2.4.A.3)
- 1 point: Describes a plausible MVP for BrightPath (e.g., a simple website or landing page where students can sign up and be matched with a tutor manually, rather than building a full app with automated matching, payment processing, and chat features) (EK 2.4.A.3)

(b) 3 points

- 1 point: Identifies who the product is for (e.g., "high school students who struggle to afford traditional tutoring") (EK 2.4.A.5)
- 1 point: Identifies what the product does (e.g., "connects them with affordable peer tutors who recently mastered the same material") (EK 2.4.A.5)
- 1 point: Identifies how it is superior to alternatives (e.g., "at a fraction of the cost of professional tutoring services, with tutors who understand the student experience") (EK 2.4.A.5)

(c) 4 points (1 each)

- Design decisions (any 2): choosing a technology platform, estimating development costs, deciding which features to include in version 1.0 vs. later releases, prototyping the user interface, gathering feedback from beta testers, determining pricing structure (EK 2.4.A.4)
- Production decisions (any 2): recruiting and onboarding tutors (supply chain equivalent for a service), building server infrastructure to handle user demand, matching the number of available tutors to anticipated student demand, establishing quality control (tutor vetting process) (EK 2.4.A.6)

(d) 2 points (1 each)

- Any 2 relevant launch actions: partnering with high schools for distribution, running targeted social media ads on platforms used by teens (Instagram, TikTok), offering a free trial period, securing app store placement, executing a referral program, attending school events to generate awareness (EK 2.4.A.7)

FRQ 2: The Life Cycle of a Fitness Tracker

FitBand is a wearable fitness tracker that launched five years ago. In its first year, sales were low but the company invested heavily in advertising and social media influencer partnerships. By year two, sales grew rapidly, and three competing fitness tracker brands entered the market. Now in year five, FitBand's sales have flattened, and a new competitor has launched a smartwatch that includes all of FitBand's features plus phone calls and app integration.

(a) Identify the product life cycle stage FitBand was in during each of the following periods: Year 1, Year 2, and Year 5. For each stage, provide ONE characteristic from the scenario that supports your identification. *(6 points)*

(b) Describe TWO specific marketing strategies FitBand should use during its current stage (Year 5) to retain market share. *(4 points)*

(c) The new smartwatch competitor could push FitBand into the decline stage. Describe TWO different strategic responses FitBand could pursue if sales begin to fall, and explain the potential outcome of each. *(4 points)*

Scoring Guidelines:

(a) 6 points (2 per period: 1 for correct stage, 1 for supporting evidence)

- Year 1: **Introduction** – sales were low and the company invested heavily in building awareness through advertising and influencer partnerships (EK 2.4.C.3)
- Year 2: **Growth** – sales grew rapidly and competitors entered the market (EK 2.4.C.4)
- Year 5: **Maturity** – sales have flattened, indicating market saturation (EK 2.4.C.5)

(b) 4 points (2 each: 1 for strategy, 1 for explanation)

- Any 2 relevant maturity-stage strategies, such as: launching a loyalty/rewards program to retain existing customers, lowering prices to remain competitive against new entrants, emphasizing brand loyalty through community-building and brand identity reinforcement, adding incremental feature improvements to differentiate from competitors (EK 2.4.C.5)

(c) 4 points (2 each: 1 for strategy, 1 for potential outcome)

- Strategy 1 (any plausible decline response): e.g., **Redesign** – FitBand could add smartwatch features (apps, calls) to compete with the new rival. Potential outcome: if successful, the product could re-enter the growth stage; if the redesign is too late or too costly, it may not recover the investment (EK 2.4.C.6)
- Strategy 2 (any different plausible decline response): e.g., **Cut costs** – FitBand could reduce production costs and lower the price to become the budget fitness tracker option. Potential outcome: this could extend the product's life by capturing price-sensitive customers, but it reduces profit margins and may not be sustainable over the long term. OR **Discontinue** – FitBand could discontinue the fitness tracker and redirect resources to developing a competing smartwatch. Potential outcome: avoids continued losses on a declining product but requires significant investment in a new product (EK 2.4.C.6)

Chapter 13 FRQs — Pricing Strategies

FRQ 1: Sunrise Smoothie Co.

Sunrise Smoothie Co. is a new smoothie shop opening in a college town already served by two established competitors: JuiceLand and Blend Bar. Sunrise's owner, Priya, has calculated that each smoothie costs $3.20 to produce (ingredients, labor, cups, and overhead). JuiceLand charges $6.50 per smoothie, and Blend Bar charges $7.00. Priya is considering pricing her smoothies at $4.99 to attract cost-conscious college students, with plans to raise the price to $6.99 after six months. Sunrise will also introduce a unique "Build-Your-Boost" customization menu that neither competitor offers.

(a) Identify the pricing strategy Priya is planning to use at launch. Explain how this strategy works. (2 points)

(b) Explain why Priya must set her price above $3.20 per smoothie. (2 points)

(c) After Priya raises her price to $6.99, she notices that her "Build-Your-Boost" customization menu is extremely popular and that competitors cannot easily replicate it. Identify a different pricing strategy Priya could consider at this point, and explain why it would be appropriate. (2 points)

(d) Priya discovers that JuiceLand and Blend Bar have been texting each other to coordinate their prices. Identify the legal issue this presents and explain the potential consequences. (2 points)

(e) College students tend to be very responsive to price changes in smoothies. Explain what this suggests about the price elasticity of demand for smoothies in this market, and what it means for Priya's pricing power. (2 points)

Scoring Guidelines:

(a) 2 points

- 1 point: Identifies the strategy as **penetration pricing**.
- 1 point: Explains that penetration pricing involves setting a **low initial price to attract customers and gain market share**, with plans to **raise the price later** once a customer base is established. (EK 2.5.A.6)

(b) 2 points

- 1 point: States that $3.20 is the **per-unit cost** of producing one smoothie.

- 1 point: Explains that a business **cannot remain profitable if its selling price is equal to or less than its per-unit cost** — the price must exceed $3.20 to generate profit. (EK 2.5.A.2)

(c) 2 points

- 1 point: Identifies **value-based pricing** as the appropriate strategy.
- 1 point: Explains that the “Build-Your-Boost” menu creates a **highly differentiated product** with high perceived value, allowing Priya to price based on what customers believe the experience is worth rather than just on cost or competitor prices. (EK 2.5.A.3)

(d) 2 points

- 1 point: Identifies the practice as **price collusion** — competitors secretly coordinating prices.
- 1 point: Explains that price collusion is **illegal** under federal antitrust law and can result in significant fines and criminal penalties for the businesses and individuals involved. (EK 2.5.C.1)

(e) 2 points

- 1 point: Explains that high responsiveness to price changes indicates that demand for smoothies is **elastic** — a price increase will cause a proportionally larger decrease in quantity demanded. (EK 2.5.B.3)
- 1 point: Explains that elastic demand means Priya has **little pricing power** because customers will quickly reduce purchases or switch to competitors if she raises prices. (EK 2.5.B.1, 2.5.B.2)

Chapter 14 FRQs — Place, Channels & Promotion

FRQ 1: FreshFit Meal Prep

FreshFit Meal Prep is a small business that prepares and delivers healthy, pre-portioned meals to customers in a mid-sized city. Currently, FreshFit sells exclusively through its own website (direct channel). The owner, Marcus, is considering also selling FreshFit meals through a regional grocery chain, GreenLeaf Markets, which has 40 locations in the area.

(a) Identify the type of distribution channel FreshFit currently uses. Explain one advantage of this channel for FreshFit. (2 points)

(b) If FreshFit begins selling through GreenLeaf Markets, identify the type of channel this would represent. Explain one advantage and one disadvantage of adding this channel. (3 points)

(c) Marcus wants to launch a marketing campaign to announce the GreenLeaf partnership. Recommend two specific promotional mix tools Marcus should use and explain why each is appropriate for this situation. (4 points)

(d) Explain how Marcus could use digital marketing to support this campaign, and identify one type of big data he could collect from the digital effort. (2 points)

Scoring Guidelines:

(a) 2 points

- 1 point: Identifies FreshFit's current channel as a **direct channel** (producer sells directly to the consumer with no intermediaries). (EK 2.6.A.4)
- 1 point: Explains an advantage such as **greater control** over the customer experience, branding, and pricing; higher per-unit profit because no intermediary takes a cut; or direct relationship with customers. (EK 2.6.B.2)

(b) 3 points

- 1 point: Identifies selling through GreenLeaf Markets as an **indirect channel** (the product passes through a retail intermediary). (EK 2.6.A.4)
- 1 point: Explains an advantage such as access to GreenLeaf's **existing customer base and 40 locations** (reach and expertise), which would dramatically expand FreshFit's market without building its own distribution infrastructure. (EK 2.6.B.3)
- 1 point: Explains a disadvantage such as **lower per-unit profit** (GreenLeaf takes a share of revenue), **less control** over how meals are displayed or promoted in-store, or the risk that **rival meal prep brands** may also be on GreenLeaf's shelves. (EK 2.6.B.1, 2.6.B.3)

(c) 4 points (2 points per tool)

- 1 point each: Identifies two appropriate promotional mix tools from the five (media advertising, personal selling, sales promotion, direct marketing, public relations). (EK 2.7.A.2)
- 1 point each: Provides a clear, logical explanation of why each tool fits this scenario. Acceptable examples include:
  - **Social media advertising** (media advertising) to reach a broad local audience with the announcement. (EK 2.7.A.3)
  - **Sales promotion** (e.g., "First week 25% off at GreenLeaf") to drive trial purchases at the new location. (EK 2.7.A.5)
  - **Direct marketing** (email to existing website customers) to inform loyal customers about the new purchasing option. (EK 2.7.A.6)
  - **Public relations** (press release to local media about the partnership) to build credibility and earn free coverage. (EK 2.7.A.7)
  - **Personal selling** is less likely but could be credited if the student explains in-store demos/sampling at GreenLeaf locations. (EK 2.7.A.4)

(d) 2 points

- 1 point: Explains how Marcus could use digital marketing tools such as **social media ads targeting local users**, **email blasts to his subscriber list**, or **website announcements with location finders** to promote the GreenLeaf partnership at a lower cost with personalized messaging. (EK 2.7.B.1, 2.7.B.2)
- 1 point: Identifies a specific type of big data that could be collected, such as **click-through rates on the announcement email**, **social media engagement metrics** (likes, shares, comments), **website traffic from the campaign page**, or **demographic data about which customers clicked the GreenLeaf store locator**. (EK 2.7.B.3)

FRQ 2: SoundWave Headphones

SoundWave is a mid-sized electronics company that manufactures wireless headphones. SoundWave currently sells its headphones through three indirect channels: Amazon, Best Buy, and Target. The marketing director, Aaliyah, is proposing that SoundWave also launch its own direct-to-consumer (DTC) website and run a major digital marketing campaign to drive traffic to the new site.

(a) Identify one reason SoundWave's current indirect channels through Amazon, Best Buy, and Target are beneficial to the company. (1 point)

(b) Identify and explain one risk SoundWave faces by relying on indirect channels where competitors' headphones are also sold. (2 points)

(c) Explain two advantages Aaliyah's proposed DTC website (direct channel) would provide compared to the existing indirect channels. (2 points)

(d) Aaliyah plans a digital marketing campaign to launch the DTC website. Identify two specific digital marketing tools she should use and explain how each supports the launch. (2 points)

(e) Explain how the digital campaign will enable SoundWave to collect big data, and describe one specific way the company could use that data to improve future marketing decisions. (2 points)

Scoring Guidelines:

(a) 1 point

- 1 point: Identifies a benefit of indirect channels such as access to the **existing customer traffic and reach** of Amazon, Best Buy, and Target; the **expertise** these retailers have in selling electronics; or the **lower cost** of using established retail infrastructure rather than building SoundWave's own. (EK 2.6.B.1, 2.6.B.3)

(b) 2 points

- 1 point: Identifies the risk that **rival headphone brands** (e.g., Sony, Bose, Beats) also sell through these same retailers. (EK 2.6.B.3)
- 1 point: Explains the consequence — SoundWave has **less control** over how its products are displayed, promoted, or compared to competitors on the same shelf or product page, making it harder to differentiate and potentially losing sales to rivals that dominate the channel. (EK 2.6.B.3)

(c) 2 points (1 point each)

- 1 point: Explains that the DTC website gives SoundWave **more control** over branding, product presentation, pricing, and the overall customer experience. (EK 2.6.B.2)
- 1 point: Explains a second advantage such as **higher per-unit profit** (no retailer margin), **direct customer relationships** allowing for better data collection, or the ability to **customize the shopping experience** without competitor products alongside. (EK 2.6.B.1, 2.6.B.2)

(d) 2 points (1 point per tool)

- 1 point each: Identifies two digital marketing tools (from websites, email, social media, mobile apps) and briefly explains how each supports the launch. Acceptable examples:
  - **Social media ads** on Instagram/TikTok targeting headphone enthusiasts to drive traffic to the new site. (EK 2.7.B.1)
  - **Email marketing** to existing customers (from warranty registrations or past purchases) announcing the new DTC option with an exclusive launch discount. (EK 2.7.B.1, 2.7.B.2)

- ◦ **Website** with SEO optimization so customers searching for wireless headphones find SoundWave's DTC site. (EK 2.7.B.1)
- ◦ **Mobile app** with push notifications for launch deals. (EK 2.7.B.1)

(e) 2 points

- 1 point: Explains that digital marketing tools track user behavior, generating **big data** such as website traffic sources, page views, time on site, click-through rates, cart abandonment rates, social media engagement metrics, and demographic information about visitors. (EK 2.7.B.3)
- 1 point: Describes a specific use of that data, such as identifying which **ad creatives generate the most clicks** (to refine future ad spending), analyzing **cart abandonment data** to identify pricing or UX issues, or using **demographic data** to better target future campaigns to the most responsive audience segments. (EK 2.7.B.3)

Chapter 15 FRQs — Saving for the Future

Scenario: Priya's Savings Dilemma

Priya is a 24-year-old graphic designer earning $42,000 per year ($3,500/month after taxes). Her monthly expenses total $2,800, broken down as follows: rent ($1,200), car payment ($350), groceries ($400), utilities ($150), student loan payment ($300), subscriptions ($100), and discretionary spending ($300). She currently has $1,500 in a checking account and no savings.

Priya has three financial goals:

1. Build a $6,000 emergency fund within one year
2. Save $8,000 for a used car (to replace her current car when the loan ends in 3 years)
3. Begin saving for retirement

She recently saw an ad for a cryptocurrency platform promising "10% guaranteed returns" and is considering putting all her savings there.

(a) Calculate Priya's monthly savings capacity. Show your work. (2 points)

(b) Identify and explain TWO barriers to saving that Priya may face based on the scenario. (4 points)

(c) Recommend a specific savings vehicle for EACH of Priya's three goals. For each recommendation, explain why that vehicle is the best fit by referencing at least one selection factor. (6 points)

(d) Explain why the cryptocurrency platform is a risky choice for Priya's savings. Identify TWO specific risks compared to traditional savings vehicles. (4 points)

Scoring Guidelines:

(a) Monthly savings capacity (2 points)

- 1 point: Correctly identifies income ($3,500) and expenses ($2,800)
- 1 point: Correctly calculates $3,500 - $2,800 = **$700/month** available to save

(b) Two barriers to saving (4 points — 2 points each)

- Acceptable barriers include:
    - **Instant gratification / impulse buying:** $300/month in discretionary spending and $100 in subscriptions could be reduced but represent temptation (EK 3.1.A.5)
    - **Lifestyle inflation:** As her career progresses and income grows, she may increase spending rather than saving (EK 3.1.A.5)
    - **Competing goals:** Three simultaneous goals strain her $700 monthly capacity, potentially leading to frustration and abandoning the plan
- Each barrier: 1 point for identifying, 1 point for explaining with scenario connection

(c) Savings vehicle recommendations (6 points — 2 points each goal)

- **Emergency fund:** Savings account or money market account — needs liquidity/easy access (EK 3.1.C.4/C.5); 1 point for correct vehicle, 1 point for justified reasoning
- **Car fund (3 years):** CD or money market account — higher interest rate for medium-term goal, CD locks in rate (EK 3.1.C.5/C.6); 1 point for correct vehicle, 1 point for justified reasoning
- **Retirement:** Employer-sponsored 401(k) or IRA — tax advantages, long time horizon benefits from compound interest (EK 3.1.A.4/3.1.A.3); 1 point for correct vehicle, 1 point for justified reasoning

(d) Cryptocurrency risks (4 points — 2 points each risk)

- Acceptable risks:
    - **Not federally insured:** Unlike bank accounts insured up to $250,000 by FDIC, cryptocurrency holdings have no government insurance. If the platform fails, Priya could lose everything (EK 3.1.C.7)
    - **No guaranteed interest/returns:** "Guaranteed 10% returns" is a red flag. Crypto values are volatile and can drop significantly. Traditional savings vehicles offer predictable, if lower, returns (EK 3.1.C.7)
    - **Volatility/risk:** Cryptocurrency prices can swing dramatically, making it unsuitable for short-term goals like an emergency fund
- Each risk: 1 point for identifying, 1 point for explaining comparison to traditional vehicles

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Chapter 16 FRQs — Borrowing, Credit & Debt

Scenario: The Diaz Family's Debt Situation

The Diaz family has the following financial profile:

- **Combined monthly income:** $6,500
- **Monthly expenses (non-debt):** $3,200 (housing, food, utilities, transportation, insurance)
- **Debt obligations:**
    - Mortgage: $185,000 remaining at 6.5% APR ($1,200/month payment)
    - Credit card #1: $8,500 balance at 24.9% APR ($250/month minimum)
    - Credit card #2: $3,200 balance at 19.9% APR ($96/month minimum)

- Car loan: $11,000 remaining at 5.5% APR ($375/month payment)

- **Credit scores:** Mr. Diaz: 620 (Fair) | Mrs. Diaz: 590 (Fair)

The Diaz family is considering the following options:

- Option A: Transfer both credit card balances to a new card offering 0% APR for 18 months
- Option B: Take out a payday loan to make this month's credit card payments
- Option C: Stop paying the credit cards and file for bankruptcy

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(a) Calculate the Diaz family's total monthly debt payments and remaining monthly income after all expenses and debt payments. Show your work. (3 points)

(b) Explain why the lenders charged the Diaz family different interest rates on their mortgage (6.5%), car loan (5.5%), and credit cards (24.9% and 19.9%). Reference the concept of secured vs. unsecured debt in your answer. (4 points)

(c) Evaluate Option A (balance transfer) and Option B (payday loan). For each option, identify whether it is a sound financial strategy and explain your reasoning. (4 points)

(d) Recommend TWO specific strategies the Diaz family should pursue to improve their financial situation over the next two years. For each strategy, explain how it connects to improving their credit scores. (4 points)

(e) Explain why Option C (bankruptcy) should be a last resort. Identify TWO specific consequences of bankruptcy for the Diaz family. (3 points)

Scoring Guidelines:

(a) Total monthly debt and remaining income (3 points)

- 1 point: Correctly lists all debt payments: $1,200 + $250 + $96 + $375 = **$1,921/month** in debt payments
- 1 point: Correctly calculates total outflow: $3,200 (expenses) + $1,921 (debt) = **$5,121/month**
- 1 point: Correctly calculates remaining: $6,500 - $5,121 = **$1,379/month** remaining

(b) Different interest rates explained (4 points)

- 1 point: Identifies the mortgage as a secured loan backed by the house as collateral (EK 3.2.A.2)
- 1 point: Identifies the car loan as a secured loan backed by the vehicle (EK 3.2.A.2)
- 1 point: Identifies credit cards as unsecured debt with no collateral (EK 3.2.A.2)
- 1 point: Explains that secured loans carry lower rates because the lender can seize the collateral if the borrower defaults, reducing the lender's risk; unsecured loans carry higher rates to compensate for greater risk (EK 3.2.B.1)

(c) Evaluation of Options A and B (4 points — 2 points each)

- **Option A (Balance Transfer):** Sound strategy (1 point). The 0% APR for 18 months eliminates interest charges temporarily, allowing more of each payment to reduce the principal. The family should aim to pay off as much as possible during the promotional period. Must note the importance of paying off before the rate resets. (1 point for reasoning) (EK 3.2.C.2)

- **Option B (Payday Loan):** Not a sound strategy (1 point). Payday loans carry extremely high APRs (300%+), would add a new debt on top of existing debts, and create a potential debt spiral. Using high-cost debt to pay other debt worsens the situation. (1 point for reasoning) (EK 3.2.A.4)

(d) Two improvement strategies (4 points — 2 points each)

- Acceptable strategies include:
  - **Avalanche method:** Direct the $1,379 surplus toward the highest-interest credit card (24.9%) first while making minimums on everything else. Reducing balances improves credit utilization ratio, boosting scores. (EK 3.2.C.2)
  - **On-time payments:** Set up autopay for all accounts to ensure no missed payments. Payment history is 35% of the FICO score; consistent on-time payments will gradually increase their scores. (EK 3.2.C.3)
  - **Reduce credit utilization:** Pay down credit card balances to below 30% of their credit limits. This directly improves the "amounts owed" factor (30% of FICO). (EK 3.2.C.3)
  - **Avoid new credit inquiries:** Refrain from applying for new credit accounts, which would trigger hard inquiries and lower scores. (EK 3.2.C.3)
- Each strategy: 1 point for identifying, 1 point for connecting to credit score improvement

(e) Bankruptcy as last resort (3 points)

- 1 point: Explains that bankruptcy should be a last resort because the Diaz family still has $1,379/month available and their debt, while significant, can be managed with disciplined repayment strategies (EK 3.2.C.6)
- 1 point each (2 total) for identifying TWO consequences:
  - Bankruptcy stays on credit report for 7-10 years, making all future borrowing significantly more expensive or impossible (EK 3.2.C.6)
  - Credit scores would drop dramatically, affecting ability to rent housing, obtain insurance at reasonable rates, or potentially secure certain employment (EK 3.2.B.4, EK 3.2.C.6)
  - May require liquidation of assets (Chapter 7) or years on a court-mandated repayment plan (Chapter 13)
  - The mortgage and car loan are secured — bankruptcy doesn't guarantee they keep these assets

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Chapter 17 FRQs — Accounting & Business Expenses

Free-Response Question 1

Scenario: Marcus is opening a mobile car detailing business. He will drive to customers' locations and clean their vehicles on-site. His startup costs include a used van ($12,000), pressure washer and detailing equipment ($3,000), business registration ($300), and initial supplies (soap, wax, towels — $500). Once operating, his monthly expenses include gas ($400), supplies restocked as needed (~$200/month for every 40 cars detailed), insurance ($250/month), his cell phone plan ($80/month), and marketing via social media ads ($150/month). Marcus details an average of 40 cars per month and charges $75 per car.

(a) Classify Marcus's startup costs as either one-time expenditures or initial expenses. Identify at least two examples of each. (4 points)

(b) Identify one fixed operating expense and one variable operating expense Marcus faces each month. Explain why each is classified that way. (4 points)

(c) Calculate Marcus's monthly COGS (or cost of sales, since this is a service business) and his gross profit. Show your work. Then identify two operating expenses that would be subtracted from gross profit to determine net income. (4 points)

Scoring Guidelines

(a) Classifying startup costs (4 points)

- 1 point: Correctly identifies at least two one-time expenditures (e.g., van purchase at $12,000, equipment at $3,000, business registration at $300).
- 1 point: Explains that these are one-time because they are paid once to launch the business and are not recurring (EK 3.4.A.1).
- 1 point: Correctly identifies at least two initial expenses (e.g., initial supplies at $500, first month's insurance at $250, initial marketing spend).
- 1 point: Explains that initial expenses are recurring costs that begin before or at launch and continue during operations (EK 3.4.A.2).

(b) Fixed vs. variable expenses (4 points)

- 1 point: Correctly identifies a fixed expense (e.g., insurance at $250/month or cell phone at $80/month).
- 1 point: Explains that this expense stays the same regardless of how many cars Marcus details (EK 3.4.B.2).
- 1 point: Correctly identifies a variable expense (e.g., supplies at ~$200/month for 40 cars, or gas which increases with more driving to customers).
- 1 point: Explains that this expense increases as the number of cars detailed increases (EK 3.4.B.2).

(c) Calculating cost of sales and gross profit (4 points)

- 1 point: Correctly identifies cost of sales components: gas ($400) and supplies ($200) as direct costs of providing the detailing service, totaling $600/month (EK 3.4.B.4).
- 1 point: Correctly calculates monthly revenue: 40 cars x $75 = $3,000.
- 1 point: Correctly calculates gross profit: $3,000 - $600 = $2,400.
- 1 point: Identifies two operating expenses subtracted from gross profit (e.g., insurance at $250 and marketing at $150, or cell phone at $80) and explains these are indirect costs not tied to a specific detailing job (EK 3.4.B.5).

Free-Response Question 2

Scenario: Priya is the CFO of a mid-size clothing company called ThreadLine that sells T-shirts and hoodies through its website. ThreadLine is a public corporation. Last quarter, the company generated $2 million in revenue. The accounting team is preparing financial statements.

(a) Explain two reasons why ThreadLine must prepare financial statements. Identify which type of accounting professional is responsible for preparing the statements that shareholders will review. (3 points)

(b) ThreadLine's direct costs last quarter included $400,000 in raw fabric, $150,000 in production worker wages, and $50,000 in dye and printing supplies. Calculate ThreadLine's COGS and gross profit. Explain why production worker wages are classified as COGS rather than operating expenses. (4 points)

(c) ThreadLine's operating expenses include $120,000 in warehouse rent, $80,000 in marketing, $60,000 in management salaries, and $25,000 in insurance. Classify each as fixed or variable. Explain why insurance is particularly important for a company with a warehouse full of inventory. (3 points)

Scoring Guidelines

(a) Financial statements and roles (3 points)

- 1 point: Identifies one valid reason (e.g., GAAP requires public corporations to file quarterly and annual financial statements for regulatory compliance — EK 3.3.A.4).
- 1 point: Identifies a second valid reason (e.g., shareholders use financial statements to evaluate their investment and make informed decisions — EK 3.3.A.3).
- 1 point: Identifies the financial accountant as the professional who prepares external reports for shareholders and regulators (EK 3.3.B.3).

(b) COGS and gross profit (4 points)

- 1 point: Correctly calculates COGS: $400,000 + $150,000 + $50,000 = $600,000 (EK 3.4.B.3).
- 1 point: Correctly calculates gross profit: $2,000,000 - $600,000 = $1,400,000.
- 1 point: Explains that production worker wages are COGS because they are directly tied to manufacturing the T-shirts and hoodies (direct cost of production — EK 3.4.B.3).
- 1 point: Distinguishes from operating expenses by noting that operating expenses are indirect costs (like management salaries) that support the business overall but are not traced to specific products (EK 3.4.B.1).

(c) Operating expense classification and insurance (3 points)

- 1 point: Correctly classifies: warehouse rent (fixed), management salaries (fixed), insurance (fixed), marketing (can be argued as fixed if contracted or variable if campaign-based — accept either with justification) (EK 3.4.B.2).
- 1 point: Explains the difference — fixed expenses stay constant regardless of production volume; any variable expense changes with volume (EK 3.4.B.2).
- 1 point: Explains that insurance protects ThreadLine against financial losses (e.g., fire, theft, or damage to warehouse inventory), and some coverage like workers' comp is legally required (EK 3.4.B.6).

Chapter 18 FRQs — Financial Capital

Free-Response Question 1

Scenario: Darius and Elena are co-founders of GreenCharge, a company that manufactures portable solar-powered phone chargers. They bootstrapped the business with $8,000 from their personal savings and have been operating for six months. They have sold 600 chargers at $45 each through their website. Each charger costs $18 in materials and direct labor (variable cost), and their fixed monthly costs are $3,000 (warehouse rent, insurance, website hosting). They want to expand into retail stores and need $150,000 for inventory, packaging redesign, and a sales team.

(a) Explain why Darius and Elena initially used bootstrapping and why they now need external capital. Identify two specific reasons businesses seek external capital that apply to GreenCharge's situation. (4 points)

(b) GreenCharge has been operating for six months. Explain whether Darius and Elena are more likely to qualify for a bank loan or need to pursue equity financing. Justify your answer with reference to the requirements for each funding source. (3 points)

(c) Calculate GreenCharge's monthly break-even point in units. Then calculate whether GreenCharge is currently operating above or below break-even, given that they sell an average of 100 chargers per month. Show your work. (3 points)

Scoring Guidelines

(a) Bootstrapping and need for external capital (4 points)

- 1 point: Explains that Darius and Elena bootstrapped because their initial startup costs ($8,000) were low enough to fund with personal savings, which is typical for early-stage businesses (EK 3.5.A.1).
- 1 point: Explains that they now need external capital because $150,000 for expansion far exceeds what personal savings or early revenue can provide.
- 1 point: Identifies one valid reason — startup/operating costs for the expansion (new inventory, packaging, sales team) exceed available resources (EK 3.5.A.3).
- 1 point: Identifies a second valid reason — growth needs (expanding into retail requires capital for inventory and hiring that bootstrapping cannot sustain) (EK 3.5.A.4). Also acceptable: cash flow management, as retail expansion creates a timing gap between purchasing inventory and receiving payment from retail partners (EK 3.5.A.5).

(b) Bank loan vs. equity financing (3 points)

- 1 point: States that GreenCharge is unlikely to qualify for a traditional bank loan because the company has only six months of operating history, and banks typically require two or more years of track record (EK 3.5.B. 3).
- 1 point: States that Darius and Elena will likely need to pursue equity financing from angel investors, venture capitalists, or friends and family, as these sources are more willing to fund newer businesses (EK 3.5.B.2).
- 1 point: Explains the trade-off — equity financing does not require repayment but means giving up partial ownership of GreenCharge, which dilutes the founders' stake (EK 3.5.B.1).

(c) Break-even analysis (3 points)

- 1 point: Correctly applies the formula: Break-even = Fixed Costs / (Price - Variable Cost) = $3,000 / ($45 - $18) = $3,000 / $27 = approximately 111.1, which rounds up to **112 chargers per month** (EK 3.5.A.2).
- 1 point: States that GreenCharge is selling 100 chargers/month, which is below the break-even point of 112.
- 1 point: Concludes that GreenCharge is currently losing money each month ($3,000 - (100 x $27) = $3,000 - $2,700 = **-$300/month loss**), which further justifies the need for external capital to sustain operations during growth.

Free-Response Question 2

Scenario: Mia is pitching her company, FitFuel, to a group of angel investors. FitFuel produces healthy, ready-to-eat meal kits for college students. She is seeking $200,000 in exchange for 15% equity. Her pitch includes the following information: FitFuel has generated $80,000 in revenue in its first year, with 1,200 unique customers and a 65% repeat purchase rate. Mia has a degree in nutrition science and previously managed operations at a meal delivery startup that was acquired by a larger company. Her co-founder is a software engineer who built FitFuel's ordering platform.

(a) Based on the equity Mia is offering, calculate FitFuel's implied valuation. Explain what valuation means and why it matters to both Mia and the investors. (3 points)

(b) Identify two pieces of evidence from Mia's pitch that demonstrate product-market fit. Explain why each is convincing to investors. (4 points)

(c) Evaluate the strength of FitFuel's leadership team. Identify two specific qualifications from the scenario that would give investors confidence, and explain why investors place so much emphasis on the team. (3 points)

Scoring Guidelines

(a) Valuation (3 points)

- 1 point: Correctly calculates the implied valuation. If \$200,000 = 15% of the company, then 100% = \$200,000 / 0.15 = **\$1,333,333** (approximately \$1.33 million) (EK 3.5.D.2).
- 1 point: Defines valuation as the process of determining how much a business is worth (EK 3.5.D.2).
- 1 point: Explains why it matters — a higher valuation means Mia gives up less ownership for the same capital. Investors want a lower valuation so their \$200,000 buys a larger share of the company. The negotiation over valuation directly affects both parties.

(b) Product-market fit evidence (4 points)

- 1 point: Identifies \$80,000 in first-year revenue as evidence of product-market fit.
- 1 point: Explains why — actual revenue proves that customers are not just interested but willing to pay, which is the strongest indicator of demand (EK 3.5.D.3).
- 1 point: Identifies the 65% repeat purchase rate (or 1,200 unique customers) as evidence.
- 1 point: Explains why — a high repeat purchase rate shows that customers are satisfied and return, meaning FitFuel is not just acquiring customers but retaining them. This suggests the product genuinely solves a problem (EK 3.5.D.3).

(c) Leadership team evaluation (3 points)

- 1 point: Identifies Mia's nutrition science degree and her operational management experience at a meal delivery startup that was successfully acquired (EK 3.5.D.4).
- 1 point: Identifies the co-founder's software engineering skills and the fact that he built FitFuel's ordering platform, showing technical capability (EK 3.5.D.4).
- 1 point: Explains why investors emphasize the team — business plans change and markets shift, but a capable team can adapt, pivot, and execute. Investors need confidence that the people behind the business have the skills and experience to navigate challenges and deliver returns on the investment (EK 3.5.D.4).

Chapter 19 FRQs — The Income Statement

Free-Response Question 1

Scenario: TuneWave is a startup that sells wireless earbuds online. In its first full year of operation, TuneWave reported the following:

Item	Amount
Revenue	$2,000,000
Cost of Goods Sold	$900,000
Selling Expenses	$250,000
General & Administrative Expenses	$300,000
Research & Development Expenses	$150,000
Interest Expense	$40,000
Tax Rate	20%

(a) Calculate TuneWave's gross profit, operating profit, pretax income, and net income. Show your work for each step. (4 points)

(b) Calculate TuneWave's gross profit margin, operating profit margin, and net profit margin. Show your work. (3 points)

(c) TuneWave's closest competitor, SoundPulse, has a net profit margin of 22%. TuneWave's founders projected a net profit margin of 20% for their first year. Evaluate TuneWave's financial performance using at least two benchmarking methods. (3 points)

Scoring Guidelines — FRQ 1

(a) Calculate profit figures (4 points)

- 1 point: Gross profit = $2,000,000 - $900,000 = **$1,100,000** (EK 3.6.A.4)
- 1 point: Operating profit = $1,100,000 - ($250,000 + $300,000 + $150,000) = $1,100,000 - $700,000 = **$400,000** (EK 3.6.A.6)
- 1 point: Pretax income = $400,000 - $40,000 = **$360,000** (EK 3.6.A.7)
- 1 point: Net income = $360,000 - ($360,000 x 0.20) = $360,000 - $72,000 = **$288,000** (EK 3.6.A.9)

(b) Calculate profit margins (3 points)

- 1 point: Gross profit margin = $1,100,000 / $2,000,000 = **55.0%** (EK 3.6.B.2)
- 1 point: Operating profit margin = $400,000 / $2,000,000 = **20.0%** (EK 3.6.B.3)
- 1 point: Net profit margin = $288,000 / $2,000,000 = **14.4%** (EK 3.6.B.4)

(c) Evaluate performance using benchmarking (3 points)

- 1 point: Benchmark against projections – TuneWave projected a 20% net profit margin but achieved 14.4%. It fell short of its own goal by 5.6 percentage points, suggesting costs were higher or revenue was lower than expected (EK 3.6.B.5).

- 1 point: Benchmark against competitors – SoundPulse has a 22% net profit margin versus TuneWave's 14.4%. TuneWave trails its competitor by 7.6 percentage points, indicating an area for improvement (EK 3.6.B.5).
- 1 point: Provides a reasonable analysis or recommendation – For example, TuneWave might investigate whether its operating expenses (especially R&D as a startup) are disproportionately high, or whether pricing is too low. As a first-year startup, some profit margin compression is normal, but the gap against both projections and competitors warrants attention.

Free-Response Question 2

Scenario: Maya owns a small graphic design studio called PixelCraft. She is preparing her income statement for the current year and projecting next year's performance. Here is her current-year data:

Item	Amount
Revenue	$400,000
COGS	$80,000
Selling Expenses	$50,000
G&A Expenses	$120,000
R&D Expenses	$10,000
Interest Expense	$5,000
Tax Rate	25%

Maya expects that next year her revenue will grow by 15% because she plans to add two new corporate clients (based on market research). She expects COGS and selling expenses to increase proportionally with revenue (they are variable costs), while G&A, R&D, and interest expense will stay the same (they are fixed costs).

(a) Calculate Maya's current-year net income and net profit margin. Show your work. (3 points)

(b) Calculate Maya's projected revenue, projected total expenses, and projected net income for next year. Show your work. (4 points)

(c) Identify one source of financial uncertainty that could cause Maya's actual results to differ from her projections. Explain how this uncertainty could affect either her revenue or her expenses. (2 points)

Scoring Guidelines — FRQ 2

(a) Current-year calculations (3 points)

- 1 point: Gross profit = $400,000 - $80,000 = $320,000. Operating profit = $320,000 - ($50,000 + $120,000 + $10,000) = $320,000 - $180,000 = $140,000. Pretax income = $140,000 - $5,000 = $135,000 (EK 3.6.A.4, 3.6.A.6, 3.6.A.7).

- 1 point: Net income = $135,000 - ($135,000 x 0.25) = $135,000 - $33,750 = **$101,250** (EK 3.6.A.9).
- 1 point: Net profit margin = $101,250 / $400,000 = **25.3%** (EK 3.6.B.4).

(b) Projected next-year calculations (4 points)

- 1 point: Projected revenue = $400,000 x 1.15 = **$460,000** (EK 3.6.C.2).
- 1 point: Projected variable costs – COGS = $80,000 x 1.15 = $92,000; Selling = $50,000 x 1.15 = $57,500. Fixed costs unchanged: G&A = $120,000; R&D = $10,000; Interest = $5,000 (EK 3.6.C.3).
- 1 point: Total projected expenses = $92,000 + $57,500 + $120,000 + $10,000 + $5,000 = **$284,500**.
- 1 point: Projected pretax income = $460,000 - $92,000 - $57,500 - $120,000 - $10,000 - $5,000 = $175,500. Tax = $175,500 x 0.25 = $43,875. Projected net income = $175,500 - $43,875 = **$131,625**.

(c) Financial uncertainty (2 points)

- 1 point: Identifies a valid source of financial uncertainty, such as: a new competitor entering the graphic design market, an economic downturn reducing corporate marketing budgets, the new clients not materializing as expected, or a PESTEL factor like technological disruption from AI design tools (EK 3.6.C.1).
- 1 point: Explains the impact – for example, if a recession reduces corporate marketing budgets, Maya's two new clients may cut their design spending, causing actual revenue to fall below the $460,000 projection and reducing net income accordingly.

Chapter 20 FRQs — Balance Sheet & Net Worth

Free-Response Question 1

Scenario: Mia and Carlos are co-owners of GlowFit, a small fitness studio. They are reviewing GlowFit's financial statements at the end of its second year of operation. Here is the balance sheet data as of December 31, 2025:

Assets	Amount	Liabilities & Equity	Amount
Cash	$18,000	Accounts Payable	$6,000
Accounts Receivable	$7,000	Wages Payable	$4,000
Inventory (merchandise)	$5,000	Bank Loan (3-year)	$40,000
Equipment	$60,000	Owner's Investment	$25,000
Furniture	$15,000	Retained Earnings	?

(a) Calculate GlowFit's total assets. Identify which assets are current and which are long-term. (3 points)

(b) Calculate GlowFit's total liabilities. Identify which liabilities are current and which are long-term. (3 points)

(c) Using the accounting equation, calculate the missing retained earnings figure and total owners' equity. Show your work. (3 points)

(d) In year one, GlowFit's total assets were $80,000 and total liabilities were $55,000. Compare owners' equity in year one to year two. What does this change suggest about the studio's financial health? (3 points)

Scoring Guidelines — FRQ 1

(a) Total assets and classification (3 points)

- 1 point: Identifies current assets – Cash ($18,000) + Accounts Receivable ($7,000) + Inventory ($5,000) = $30,000 (EK 3.7.A).
- 1 point: Identifies long-term assets – Equipment ($60,000) + Furniture ($15,000) = $75,000 (EK 3.7.A).
- 1 point: Calculates total assets = $30,000 + $75,000 = **$105,000**.

(b) Total liabilities and classification (3 points)

- 1 point: Identifies current liabilities – Accounts Payable ($6,000) + Wages Payable ($4,000) = $10,000 (EK 3.7.A).
- 1 point: Identifies long-term liabilities – Bank Loan ($40,000) (EK 3.7.A).
- 1 point: Calculates total liabilities = $10,000 + $40,000 = **$50,000**.

(c) Retained earnings and owners' equity (3 points)

- 1 point: States the accounting equation: Assets = Liabilities + Owners' Equity (EK 3.7.A).
- 1 point: Calculates total owners' equity = $105,000 - $50,000 = **$55,000**.
- 1 point: Calculates retained earnings = $55,000 - $25,000 (owner's investment) = **$30,000**.

(d) Year-over-year comparison (3 points)

- 1 point: Calculates year-one owners' equity = $80,000 - $55,000 = **$25,000** (EK 3.7.A).
- 1 point: Notes that owners' equity grew from $25,000 (year one) to $55,000 (year two), an increase of $30,000.
- 1 point: Explains the significance – the increase in owners' equity indicates that GlowFit is building value for its owners. The studio's assets grew faster than its liabilities, suggesting the business is profitable and retaining earnings. This is a positive sign of improving financial health.

Chapter 21 FRQs — Cash Flow & Financial Ethics

FreshBite Food Truck Scenario

Marcus owns FreshBite, a popular food truck in Austin, Texas. After one year of operations, he prepares the following financial information:

- Total revenue earned: $185,000
- Total expenses incurred: $141,000
- Cash collected from customers: $160,000 (some catering clients have not yet paid)
- Cash paid for ingredients, wages, and operating costs: $141,000
- Marcus purchased a second food truck for $35,000 in cash
- Marcus sold his original prep equipment for $4,000
- Marcus took out a $20,000 bank loan
- Marcus repaid $8,000 of a previous loan

A local investor is considering giving Marcus $50,000 in exchange for a 20% ownership stake. The investor has asked to see both the income statement and the cash flow statement.

(a) Calculate Marcus's net income. Then calculate his net cash flow from operating activities. Explain why these two numbers differ. (4 points)

(b) Prepare a summary cash flow statement for FreshBite, showing net cash from each of the three sections and the overall net change in cash. (4 points)

(c) If Marcus were to intentionally inflate his revenue figures to make the business look more attractive to the investor, identify two specific consequences he could face and explain how the Sarbanes-Oxley Act would apply — or not apply — to Marcus's food truck business. (4 points)

Scoring Guidelines:

(a) Net Income and Operating Cash Flow (4 points)

- 1 point: Net income = $185,000 - $141,000 = **$44,000**
- 1 point: Net cash from operating activities = $160,000 - $141,000 = **$19,000**
- 2 points: Explanation that the difference arises because revenue is recorded on an accrual basis when earned ($185,000), but only $160,000 in cash has actually been collected. The $25,000 gap represents customers who owe money but have not yet paid — demonstrating that cash flow does not equal profit due to the timing of receipts versus expenses. (EK 3.8)

(b) Cash Flow Statement Summary (4 points)

- 1 point: Operating activities: $160,000 - $141,000 = **$19,000**
- 1 point: Investing activities: -$35,000 + $4,000 = **($31,000)**
- 1 point: Financing activities: $20,000 - $8,000 = **$12,000**
- 1 point: Net change in cash: $19,000 + (-$31,000) + $12,000 = **$0** (or correctly adding all three sections regardless of result)

(EK 3.8: Three sections — operating, investing, financing)

(c) Fraud Consequences and SOX Applicability (4 points)

- 1 point: Consequence 1 — Legal penalties. Marcus could face lawsuits from the defrauded investor, and depending on jurisdiction, criminal charges for securities fraud or theft by deception.
- 1 point: Consequence 2 — Loss of trust. If the investor or community discovers the inflated numbers, Marcus's reputation would be damaged, making it difficult to attract future investors, obtain bank loans, or retain customers.
- 2 points: SOX applicability — The Sarbanes-Oxley Act applies only to publicly traded companies, so it would not directly apply to Marcus's privately owned food truck. However, the same ethical principles apply: all businesses have a responsibility to report finances accurately, and fraud carries legal consequences regardless of company size. Marcus could still face civil lawsuits and criminal charges under general fraud statutes. (EK 3.9)

Chapter 22 FRQs — Management, Leadership & KPIs

BrewRight Coffee Shop Scenario

Jasmine owns BrewRight, a local coffee shop with 8 employees in a college town. BrewRight has been open for two years and is modestly profitable. Jasmine handles most decisions herself but is feeling overwhelmed as the business grows. She is considering opening a second location across town next year.

Last quarter's data:

- Revenue: $120,000 (up from $105,000 the previous quarter)
- Net profit margin: 8%
- Customer satisfaction score: 4.2 out of 5.0
- Employee turnover: 3 out of 8 employees left in the past 6 months
- Average customer wait time: 9 minutes

Jasmine currently makes every decision — from choosing suppliers to designing the menu to scheduling shifts — without input from her team.

(a) Identify Jasmine's current leadership style. Then recommend a different leadership style she should consider as she scales to a second location, and explain why the shift would benefit her business. (3 points)

(b) For each of the four management functions (planning, organizing, leading, controlling), describe one specific action Jasmine should take to prepare for opening the second location. (4 points)

(c) Using Jasmine's data, identify TWO KPIs (one financial and one non-financial) that should concern her most. For each KPI, write a SMART goal that would address the concern. (4 points)

(d) Explain the difference between being a manager and being a leader. Identify one way Jasmine is currently acting as a manager and one way she will need to act as a leader to successfully expand. (3 points)

Scoring Guidelines:

(a) Leadership Style Analysis (3 points)

- 1 point: Jasmine's current style is **autocratic** — she makes every decision herself without team input.
- 1 point: She should consider **democratic** leadership (or **transformational** leadership) as she scales.
- 1 point: Explanation — With two locations, she cannot be everywhere at once. Democratic leadership would empower her team to contribute ideas and make decisions, building the independent decision-making capacity she will need at the second location. Alternatively, transformational leadership would help her communicate a compelling vision and motivate employees to take ownership as the company grows. (EK 4.1)

(b) Four Management Functions (4 points — 1 point each)

- **Planning:** Develop a business plan for the second location, including projected costs, revenue targets, a timeline for opening, and a site selection process. (EK 4.1)
- **Organizing:** Define roles and assign responsibilities — hire or promote a manager for the original location, establish a reporting structure, and allocate budget across both locations. (EK 4.1)

- **Leading:** Communicate the expansion vision to her team, motivate key employees to take on larger roles, and build enthusiasm about the growth opportunity. (EK 4.1)
- **Controlling:** Set specific KPIs for both locations (revenue, customer satisfaction, wait times), establish weekly review meetings, and create a system for tracking performance across both sites. (EK 4.1)

(c) KPI Analysis with SMART Goals (4 points)

- 1 point: **Non-financial concern — Employee retention.** Losing 3 out of 8 employees (37.5% turnover) in six months is alarming and costly. High turnover will be even more damaging with two locations.
- 1 point: SMART goal for retention: "Reduce employee turnover from 37.5% to below 15% annually by December 31 by implementing a competitive hourly wage increase, offering flexible scheduling, and creating a 90-day onboarding program." (EK 4.2 — non-financial KPIs, SMART goals)
- 1 point: **Financial concern — Net profit margin at 8%.** While revenue is growing (up ~14%), an 8% net profit margin is thin for a business about to take on the significant costs of a second location. OR: Revenue growth is strong at 14%, which is positive, but must be sustained.
- 1 point: SMART goal for profit margin: "Increase net profit margin from 8% to 12% within the next two quarters by renegotiating supplier contracts, reducing waste by 20%, and introducing a higher-profit-margin specialty drink menu." (EK 4.2 — financial KPIs, SMART goals)

(d) Manager vs. Leader Distinction (3 points)

- 1 point: A **manager** focuses on processes, efficiency, and ensuring things run smoothly day to day. A **leader** focuses on vision, inspiration, and driving change. Both roles are essential. (EK 4.1)
- 1 point: Jasmine currently acts as a **manager** when she handles scheduling, chooses suppliers, and makes operational decisions to keep the shop running efficiently.
- 1 point: To expand successfully, she will need to act as a **leader** by communicating a compelling vision for BrewRight's future, inspiring her team to embrace the change of a second location, and motivating employees to take on greater responsibility and grow with the company. (EK 4.1)

Chapter 23 FRQs — Strategy & Decision Making

Free-Response Question 1

Tanya owns a successful mobile car-detailing business. She currently operates alone with one van, serving residential customers in her city. Demand has outgrown her capacity—she is turning away five to eight customers per week. Tanya is considering three options to grow her business:

- *Option A: Hire a second detailer and lease a second van*
- *Option B: Raise prices by 25% to reduce demand to a manageable level*
- *Option C: Partner with a local car dealership to provide detailing services exclusively for their customers*

(a) Explain how Tanya should use the strategic planning hierarchy (vision → goals → strategies → tactics) to frame her growth decision. Provide a specific example at each level. *(4 points)*

(b) Construct a decision matrix with at least three relevant criteria to compare Tanya's three options. Assign reasonable weights and scores, then calculate the weighted totals. Identify which option scores highest. *(5 points)*

(c) Identify two pieces of evidence Tanya should gather before making her final decision. For each, explain how that evidence would reduce uncertainty. *(4 points)*

Scoring Guidelines — FRQ 1

(a) Strategic Planning Hierarchy (4 points: 1 point per level)

- **Vision (1 pt):** Student provides a plausible long-term vision for Tanya's business (e.g., "To be the most trusted mobile car-care service in the metro area").
- **Goal (1 pt):** Student states a specific, measurable goal (e.g., "Serve 40 customers per week within 12 months").
- **Strategy (1 pt):** Student identifies a general approach to achieving the goal (e.g., "Expand capacity by adding a second team").
- **Tactic (1 pt):** Student provides a concrete, short-term action (e.g., "Post a job listing on Indeed this week and begin interviewing candidates").

(b) Decision Matrix (5 points)

- **Criteria identified (1 pt):** At least three relevant criteria (e.g., startup cost, revenue potential, risk, brand alignment, speed to launch).
- **Weights assigned (1 pt):** Weights are assigned and total 100% (or a consistent scale like 1-5). Weights reflect reasonable prioritization.
- **Scores assigned (1 pt):** Each alternative receives a score (1-5 or 1-10) on each criterion. Scores are plausible given the scenario.
- **Calculation correct (1 pt):** Weighted scores are calculated correctly (score x weight) and summed for each alternative.
- **Winner identified with justification (1 pt):** Student identifies the highest-scoring alternative and briefly explains why it scored highest.

(c) Evidence to Gather (4 points: 2 points per piece of evidence)

For each piece of evidence (x2):

- **Identifies evidence (1 pt):** Names a specific type of data or research (e.g., "average revenue per customer at the dealership" or "cost of leasing and insuring a second van").
- **Explains how it reduces uncertainty (1 pt):** Connects the evidence to the decision (e.g., "Knowing the dealership's customer volume would help Tanya estimate whether Option C could replace the residential revenue she might lose by going exclusive").

Chapter 24 FRQs — Porter's Five Forces & SWOT

Free-Response Question 1: Porter's Five Forces

GreenBrew is a small chain of three coffee shops in a mid-sized college town. The local coffee market includes two other independent shops, a Starbucks, a Dunkin', and several gas stations that sell coffee. GreenBrew differentiates itself by sourcing only organic, fair-trade beans from a single specialty importer. The town's *university has 15,000 students who are price-sensitive and can easily walk to any of the competing locations. Recently, a popular boba tea chain announced plans to open a location on the main commercial street.*

(a) Analyze GreenBrew's industry using all five of Porter's Five Forces. For each force, identify whether it is high, medium, or low AND provide one piece of evidence from the scenario to support your assessment. *(10 points)*

(b) Based on your Five Forces analysis, identify the TWO forces that pose the greatest strategic challenge to GreenBrew. For each, recommend one specific action GreenBrew could take to weaken that force. *(4 points)*

Scoring Guidelines — FRQ 1

(a) Five Forces Analysis (10 points: 2 points per force)

For each force (x5), the student earns:

- **Rating with justification (1 pt):** Correctly identifies the force as high, medium, or low.
- **Evidence from scenario (1 pt):** Cites specific scenario details to support the rating.

Acceptable answers:

Force	Expected Rating	Acceptable Evidence
Competitive rivalry	**High**	Six competitors (2 independents + Starbucks + Dunkin' + gas stations) in one college town; similar products
Threat of new entrants	**Medium to High**	Barriers to opening a coffee shop are relatively low; chain brands are already entering the market
Bargaining power of suppliers	**High**	GreenBrew relies on a single specialty importer for its organic beans; limited alternatives
Bargaining power of buyers	**High**	15,000 price-sensitive students who can easily walk to competitors; low switching costs
Threat of substitutes	**Medium to High**	Boba tea chain entering the market; students may also substitute with energy drinks, home brewing, or water

(b) Strategic Recommendations (4 points: 2 points per force)

For each of the two chosen forces:

- **Identifies the force (1 pt):** Clearly names one of the two most challenging forces.
- **Recommends a specific action (1 pt):** Provides a concrete, realistic action that would weaken that force.

Example acceptable actions:

- *Supplier power:* Identify a second fair-trade supplier to reduce dependence on the single importer.
- *Buyer power:* Launch a student loyalty program (buy 8, get 1 free) to increase switching costs.

- *Competitive rivalry:* Emphasize the organic/fair-trade differentiation more aggressively in marketing to stand out from Starbucks and Dunkin'.
- *Threat of substitutes:* Add boba tea or specialty teas to the menu to capture students who might otherwise go to the new boba chain.

Free-Response Question 2: SWOT Analysis

FreshFit Meals is a meal-prep delivery service started by two college graduates. The company prepares healthy, portioned meals and delivers them weekly to customers in a 30-mile radius. Here is what you know about the company:

- *FreshFit has a loyal customer base of 400 subscribers and a 90% monthly retention rate.*
- *The two founders handle everything—cooking, packaging, marketing, delivery, and accounting.*
- *A recent health-and-wellness survey shows that demand for meal-prep services in their area has grown 35% year-over-year.*
- *A national competitor, HelloFresh, has begun advertising heavily in their area with a promotional price 40% below FreshFit's.*
- *FreshFit has no mobile app; customers order through a basic website that frequently crashes during peak traffic.*
- *The local health department recently introduced new commercial kitchen regulations that will require $15,000 in upgrades.*

(a) Construct a complete SWOT analysis for FreshFit Meals. Include at least two items in each quadrant (Strengths, Weaknesses, Opportunities, Threats). Each item must be supported by evidence from the scenario. *(8 points)*

(b) Classify each item you identified as either an internal factor or an external factor. Explain why internal and external factors require different strategic responses. *(3 points)*

(c) Using the TOWS matrix approach, create TWO strategic recommendations for FreshFit Meals:

- One **SO strategy** (using a Strength to capture an Opportunity)
- One **WT strategy** (addressing a Weakness to defend against a Threat)

For each strategy, clearly state which SWOT items you are combining and describe a specific action FreshFit should take. *(4 points)*

Scoring Guidelines — FRQ 2

(a) SWOT Analysis (8 points: 1 point per item, minimum 2 per quadrant)

Quadrant	Acceptable Items (1 pt each, need 2)
Strengths	Loyal customer base with 90% retention; local/personal brand; fresh, healthy product focus

Quadrant	Acceptable Items (1 pt each, need 2)
Weaknesses	Founders handle all functions (no scalability); no mobile app; website crashes during peak traffic; no specialized staff
Opportunities	35% year-over-year growth in meal-prep demand; potential to develop a mobile app; expand delivery radius; add new menu options
Threats	HelloFresh advertising with 40% lower promotional pricing; new health department regulations requiring $15,000 upgrade; national competitors have greater resources

(b) Internal vs. External Classification (3 points)

- **Correct classification of Strengths and Weaknesses as internal (1 pt):** Student explains these are within the company's control (staffing decisions, technology choices, brand management).
- **Correct classification of Opportunities and Threats as external (1 pt):** Student explains these exist in the external environment (market trends, competitor actions, regulations).
- **Explains different responses (1 pt):** Internal factors can be directly acted upon (build on strengths, fix weaknesses). External factors must be anticipated and responded to (position to capture opportunities, prepare to mitigate threats) but cannot be directly controlled.

(c) TOWS Strategies (4 points: 2 per strategy)

SO Strategy (2 pts):

- **Identifies the combination (1 pt):** Names a specific Strength and a specific Opportunity from their SWOT.
- **Describes a specific action (1 pt):** Example: "Use the loyal 400-subscriber base (Strength) and growing market demand (Opportunity) to launch a referral program where existing subscribers get a free meal for each new customer they bring in, accelerating growth without heavy advertising spend."

WT Strategy (2 pts):

- **Identifies the combination (1 pt):** Names a specific Weakness and a specific Threat from their SWOT.
- **Describes a specific action (1 pt):** Example: "Address the unreliable website (Weakness) by investing in a mobile app before HelloFresh's ad campaign gains more traction (Threat), ensuring existing customers have a seamless ordering experience that reduces the temptation to switch to the national competitor."

Chapter 25 FRQs — Taxes, Net Income & Budgeting

Free-Response Question: Taylor's First Full-Time Job

Taylor just graduated from college and started a full-time marketing position earning $48,000 per year ($4,000 gross monthly income). Taylor lives in a state that charges a 4% state income tax. Taylor's monthly payroll deductions are as follows:

- Federal income tax: $380
- State income tax: $160
- Social Security: $248
- Medicare: $58

- Health insurance premium (voluntary): $120

Taylor's monthly expenses include: rent ($1,100), car payment ($300), car insurance ($95), utilities ($110), groceries ($350), streaming services ($35), dining out ($200), gym membership ($50), and student loan minimum payment ($250).

(a) Calculate Taylor's monthly net income (take-home pay) after all deductions. Show your work. (2 points)

(b) Using the 50/30/20 rule, calculate the target dollar amounts for needs, wants, and savings based on Taylor's net income. (3 points)

(c) Categorize each of Taylor's listed expenses as a need or a want. Then calculate the total for each category and determine whether Taylor is within the 50/30/20 guidelines. (4 points)

(d) Taylor notices after three months that grocery spending has averaged $420/month instead of the budgeted $350. Identify one specific adjustment Taylor could make to stay within the overall budget, and explain why tracking spending made this adjustment possible. (2 points)

Scoring Guidelines:

(a) Net Income Calculation (2 points)

- 1 point: Correctly subtracts all five deductions from gross income
- 1 point: Arrives at correct answer: $4,000 – $380 – $160 – $248 – $58 – $120 = **$3,034**

(b) 50/30/20 Targets (3 points — 1 each)

- Needs (50%): $3,034 × 0.50 = **$1,517**
- Wants (30%): $3,034 × 0.30 = **$910.20**
- Savings (20%): $3,034 × 0.20 = **$606.80**

(c) Categorization and Analysis (4 points)

- 1 point: Correctly identifies needs: rent ($1,100), car payment ($300), car insurance ($95), utilities ($110), groceries ($350), student loan payment ($250) = **$2,205**
- 1 point: Correctly identifies wants: streaming ($35), dining out ($200), gym ($50) = **$285**
- 1 point: Correctly notes that needs ($2,205) exceed the 50% target ($1,517) — Taylor is significantly over budget on needs
- 1 point: Correctly notes that wants ($285) are well under the 30% target ($910.20), and Taylor has $544 of income not yet allocated, which could go toward savings or debt

(d) Adjustment and Tracking Explanation (2 points)

- 1 point: Identifies a specific adjustment (e.g., reduce dining out by $70 to offset the $70 grocery overage, or meal-prep more to bring groceries back down, or reallocate from the unspent wants budget)
- 1 point: Explains that tracking spending allowed Taylor to identify the pattern over three months — without tracking, the overspending would have gone unnoticed and could have led to debt or depleted savings

Chapter 26 FRQs — Managing Personal Risk

Free-Response Question: Priya's Risk Management Plan

Priya is 24 years old, works full-time as a graphic designer earning $3,600/month after taxes, and rents an apartment for $1,200/month. Her essential monthly expenses total $2,400. She currently has $1,500 in savings, no renters insurance, and basic health insurance through her employer (premium: $180/month, deductible: $2,500, copay: $40). She drives a 10-year-old car to work daily.

(a) Calculate Priya's emergency fund target range (minimum and maximum). Explain why an emergency fund is considered the first line of financial defense. (3 points)

(b) Identify TWO types of insurance (other than health insurance) that Priya should carry. For each, explain what specific risk it would protect her against given her personal situation. (4 points)

(c) Priya is choosing between two auto insurance plans:

- **Plan X:** $90/month premium, $1,000 deductible
- **Plan Y:** $145/month premium, $250 deductible

Given that Priya has only $1,500 in savings, recommend a plan and justify your recommendation using the concepts of risk tolerance and the relationship between premiums and deductibles. (4 points)

(d) List TWO specific actions Priya should take to protect herself from identity theft. (2 points)

Scoring Guidelines:

(a) Emergency Fund Target (3 points)

- 1 point: Correctly calculates minimum: $2,400 × 3 = **$7,200**
- 1 point: Correctly calculates maximum: $2,400 × 6 = **$14,400**
- 1 point: Explains that an emergency fund prevents reliance on high-interest debt (credit cards) during unexpected events like job loss, car breakdown, or medical emergency, and acts as a financial buffer that keeps a temporary setback from becoming a long-term financial crisis

(b) Insurance Recommendations (4 points — 2 per insurance type)

- Type 1 (e.g., Auto insurance): 1 point for identifying the type; 1 point for explaining that Priya drives daily, increasing accident risk, and auto insurance covers liability and vehicle damage that could cost thousands
- Type 2 (e.g., Renters insurance): 1 point for identifying the type; 1 point for explaining that renters insurance covers Priya's personal belongings (laptop, furniture, clothing) against theft or damage, and provides liability coverage — all for approximately $15-$30/month
- Other acceptable answers: disability insurance (protects income if she cannot work)

(c) Auto Insurance Recommendation (4 points)

- 1 point: Recommends **Plan Y** ($145/month, $250 deductible)
- 1 point: Explains that Priya's low savings ($1,500) means she has low risk tolerance — she cannot easily absorb a $1,000 out-of-pocket cost

- 1 point: Explains the premium-deductible tradeoff — paying $55 more per month ($660/year) buys significantly lower out-of-pocket risk ($250 vs. $1,000 deductible)
- 1 point: Connects to risk tolerance — someone with minimal savings should transfer more risk to the insurance company, even at a higher monthly cost
- Note: A well-argued case for Plan X can receive full credit if the student demonstrates understanding of the tradeoff and risk tolerance concepts

(d) Identity Theft Protection Actions (2 points — 1 each)

- 1 point each for any two of: enable two-factor authentication on financial accounts, use strong/unique passwords with a password manager, monitor credit reports regularly (free at AnnualCreditReport.com), freeze credit with the three major bureaus, avoid sharing Social Security number unnecessarily, be cautious on public Wi-Fi

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Chapter 27 FRQs — Investing for Life Goals

Free-Response Question 1: Carlos's Education Funding Plan

Carlos is a high school junior researching how to pay for college. He has been accepted to a state university with total annual costs (tuition, room, board, fees) of $22,000. His family has $28,000 in a 529 plan. Carlos has received a $5,000/year renewable scholarship. He estimates he will need additional funding for four years.

(a) Calculate the total four-year cost of attending the university. Then determine how much will be covered by the 529 plan and the scholarship. How much additional funding will Carlos need? Show your work. (3 points)

(b) Carlos is considering federal student loans (4.5% interest rate) versus private student loans (8.5% interest rate) for the remaining amount. Explain TWO reasons why federal student loans are generally preferred over private student loans. (2 points)

(c) Using the Rule of 72, calculate how many years it would take for an unpaid $20,000 student loan at 6% interest to double to $40,000 if no payments were made. Explain why this demonstrates the importance of beginning loan repayment as soon as possible. (2 points)

(d) Carlos's uncle offers an alternative: instead of borrowing, Carlos could attend community college for two years (free with a local grant) and then transfer. Analyze this option, identifying one financial advantage and one potential tradeoff. (2 points)

Scoring Guidelines — FRQ 1:

(a) Cost Calculation (3 points)

- 1 point: Total four-year cost = $22,000 × 4 = **$88,000**
- 1 point: 529 plan ($28,000) + scholarship ($5,000 × 4 = $20,000) = **$48,000 covered**
- 1 point: Additional funding needed = $88,000 – $48,000 = **$40,000**

(b) Federal vs. Private Loans (2 points — 1 each)

- 1 point: Federal loans have lower interest rates (4.5% vs. 8.5%), resulting in thousands less in total interest paid
- 1 point: Federal loans offer protections not available with private loans, such as income-driven repayment plans, deferment/forbearance options, and potential loan forgiveness programs
- Other acceptable answers: federal loans do not require a credit check or cosigner for most undergraduate borrowing; interest may be subsidized while in school

(c) Rule of 72 Application (2 points)

- 1 point: 72 / 6 = **12 years** for the loan balance to double from $20,000 to $40,000
- 1 point: Explains that compound interest works against borrowers the same way it works for investors — delaying repayment allows interest to accumulate on interest, dramatically increasing the total amount owed. Starting repayment immediately reduces the principal faster and limits interest accumulation.

(d) Community College Analysis (2 points)

- 1 point: Financial advantage — eliminates two years of university costs ($44,000), potentially allowing Carlos to graduate debt-free or with much less debt
- 1 point: Potential tradeoff — may miss out on four-year university experiences (campus life, networking, specific programs), scholarship may not transfer, or some credits may not transfer to the four-year institution

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Free-Response Question 2: Priya's Investment Strategy

Priya is 25 years old and just received a $15,000 bonus from her employer. She earns $65,000/year and her employer offers a 401(k) with a 50% match up to 6% of salary. She currently contributes 3% to her 401(k) and has no other investments. She wants to use the $15,000 to start building wealth for long-term goals.

(a) Calculate Priya's current annual 401(k) contribution and her employer's match. Then calculate what her contribution and match would be if she increased to 6%. Explain why increasing to 6% is recommended. (3 points)

(b) After maximizing her 401(k) match, Priya considers investing the $15,000 bonus. She is choosing between an index fund tracking the S&P 500 (average historical return ~8%, with short-term volatility) and a 2-year certificate of deposit (CD) paying 4% with no risk. Using the Rule of 72, calculate how many years each investment would take to double. Given that Priya will not need this money for 35+ years, recommend an investment and justify using the risk-return tradeoff concept. (4 points)

(c) Priya's coworker suggests putting the entire $15,000 into a single company's stock — a tech company that has performed well recently. Explain why this strategy is problematic using the concept of diversification, and recommend a better alternative. (3 points)

(d) Using the concept of compound growth, explain why Priya's decision at age 25 will have a dramatically different outcome than if she made the same investment at age 40. Use a specific example or calculation. (3 points)

Scoring Guidelines — FRQ 2:

(a) 401(k) Contribution Analysis (3 points)

- 1 point: Current: 3% of $65,000 = $1,950/year employee contribution; 50% match = **$975 employer match**; Total: $2,925/year
- 1 point: At 6%: $3,900/year employee contribution; 50% match = **$1,950 employer match**; Total: $5,850/year
- 1 point: Increasing to 6% captures the full employer match — the additional $975/year from the employer is effectively a 50% instant return on Priya's additional contribution, which no market investment can guarantee

(b) Investment Comparison (4 points)

- 1 point: Index fund doubles in 72/8 = **9 years**; CD doubles in 72/4 = **18 years**
- 1 point: Recommends the **index fund** for the $15,000
- 1 point: Justifies using risk-return tradeoff — index fund has higher short-term volatility but higher expected long-term returns; the CD is safe but grows much more slowly
- 1 point: Connects to time horizon — with 35+ years until retirement, Priya can ride out short-term market declines; the long time horizon makes the higher-risk/higher-return option appropriate

(c) Diversification (3 points)

- 1 point: Explains that putting all money in a single stock creates **concentration risk** — if that company performs poorly, faces scandal, or goes bankrupt, Priya could lose most or all of her investment
- 1 point: Explains the concept of diversification — spreading investments across many companies and sectors reduces the impact of any single investment's poor performance
- 1 point: Recommends a better alternative, such as an S&P 500 index fund (instant diversification across 500 companies) or a total market index fund, which provides broad exposure at low cost

(d) Compound Growth Impact (3 points)

- 1 point: Clearly explains that compound growth accelerates over time — the longer money is invested, the more "doubling periods" it experiences
- 1 point: Provides specific example — $15,000 at 8% from age 25 to 65 (40 years) experiences approximately 4.4 doublings: $15,000 → ~$326,000. The same $15,000 invested at age 40 to 65 (25 years) experiences approximately 2.8 doublings: $15,000 → ~$103,000.
- 1 point: Concludes that the 15-year head start results in approximately three times the final amount, demonstrating that time — not the dollar amount invested — is the most powerful factor in building wealth through compound growth