Extra MCQ Sets — by Unit

Stimulus-based multiple-choice question sets that go beyond the chapter-end MCQs in the print book. Every set follows the AP exam pattern: a shared stimulus (chart, table, financial statement, or scenario), four to five questions per set, plausible distractors, and a full answer key with a one-line explanation tied to the Essential Knowledge (EK) concept tested.

STATUS (THIS RELEASE). Two full stimulus-based sets per unit are now live below — **10 sets, 50 questions**. Later releases add more sets toward the per-unit targets in the coverage table. Every number in these sets has been arithmetically re-checked, and every item has exactly one defensible answer.

Use each set under timed conditions (about 75–90 seconds per question). After each set, compare your reasoning to the answer-key explanation — not just the letter.

Coverage targets and progress

Unit	Stimulus types in this unit's sets	This release	Final target
Unit 1: Businesses, Competition, New Ideas	market-structure grid, startup case, ownership-form, supply-chain	2 sets / 10 Q	8
Unit 2: Marketing	customer-segment data, CAC/CLV, A/B pricing test	2 sets / 10 Q	8
Unit 3: Personal and Business Finance	income statement, personal net-worth statement, debt strategy	2 sets / 10 Q	12
Unit 4: Management and Strategy	KPI dashboard, Porter's Five Forces + SWOT grid	2 sets / 10 Q	6

Unit	Stimulus types in this unit’s sets	This release	Final target
Unit 5: Personal Goals, Budgeting, Investing	payroll stub, investment allocation + Rule of 72	2 sets / 10 Q	6
Total		**10 sets / 50 Q**	**40**

Personal-finance items make up 20–25% of the AP Section I; this companion keeps that ratio.

Unit 1: Businesses, Competition, and New Ideas

Set 1 — How Firms Compete (Unit 1, Topic 1.2)

Willow Creek has a small downtown where three businesses serve the same residents. The table summarizes how each one competes.

Business	What It Sells	How It Competes
QuickPump Gas	Regular unleaded gasoline	Lowest price on the block; matches the station across the street daily
Bloom & Vine	Custom floral arrangements	One-of-a-kind designs, personal consultations, premium prices
CityFiber	The only high-speed internet licensed in town	Holds an exclusive municipal utility franchise

Q1. QuickPump sells a product essentially identical to its rivals'. This is best described as a ______ market, in which firms compete mainly on ______.

A. differentiated; brand image
B. niche; personalized service
C. monopoly; exclusive features
D. commodity; price and efficiency

Q2. Bloom & Vine charges premium prices for custom arrangements. Which source of competitive advantage does this most directly reflect?

A. Producing at the lowest possible cost
B. Ownership of a scarce raw material
C. A government-granted monopoly
D. Differentiation through unique features and service

Q3. CityFiber is the only licensed high-speed provider in town. Its position is best described as a

A. monopoly protected by a barrier to entry
B. commodity producer
C. social enterprise
D. partnership

Q4. Which barrier to entry most directly protects CityFiber's position?

A. A government regulation granting an exclusive franchise
B. High switching costs from brand loyalty
C. Economies of scale from mass production
D. A patent on its fiber-optic cable

Q5. A newcomer wants to take QuickPump's customers. Because gasoline is undifferentiated, the newcomer's most viable strategy is to

A. charge a premium and emphasize quality
B. match or beat QuickPump's price by operating more efficiently
C. seek a patent on its fuel
D. rely on brand loyalty to charge more

Answer key for Set 1:

- Q1. (D) — EK 1.2.B.4: undifferentiated commodity markets drive firms to compete on efficiency and lowest price.
- Q2. (D) — EK 1.2.B.5: differentiated markets let firms compete on quality, features, and service rather than price alone.
- Q3. (A) — EK 1.2.B.7: a single seller protected from rivals is a monopoly sustained by barriers to entry.
- Q4. (A) — EK 1.2.B.6: regulations (such as an exclusive franchise) are a recognized barrier to entry; the others do not apply here.
- Q5. (B) — EK 1.2.B.4: with no differentiation possible, a new entrant can only win by matching or undercutting price through greater efficiency.

Set 2 — Nadia's Keyboard Startup (Unit 1, Topics 1.1, 1.7, 1.8)

Nadia builds custom mechanical keyboards by hand in her garage. She buys switches and keycaps from suppliers, assembles each keyboard to a customer's exact specification, and sells directly through her website. Parts and her labor time cost about $70 per keyboard, and she sells each for $185. Nadia is the only owner and has not registered any separate legal entity. She is weighing whether to form an LLC and whether to keep hand-assembling or shift to mass production.

Q1. Building a keyboard that solves a customer's specific typing needs is best described as

A. value capture
B. market segmentation
C. value creation
D. a barrier to entry

Q2. The $115 gap between Nadia's $70 cost and her $185 price is an example of

A. value creation
B. an operating expense
C. penetration pricing
D. value capture

Q3. As currently organized — one owner, no separate legal entity, profits reported on her personal return — Nadia's business is a

A. corporation
B. partnership
C. limited liability company
D. sole proprietorship

Q4. The primary reason Nadia might form an LLC is to

A. gain the ability to sell shares on a stock exchange
B. avoid paying any income tax on business profits
C. obtain limited liability that shields her personal assets from business debts
D. let the business continue with no owner at all

Q5. Nadia's current approach — customizing each unit by hand — is best classified as

A. mass production
B. an artisan production process
C. outsourcing
D. forward vertical integration

Answer key for Set 2:

- Q1. (C) — EK 1.1.B.2: value creation is providing a product that responds to a customer's problems, needs, or wants.
- Q2. (D) — EK 1.1.B.3: value capture is charging a price above cost ($185 – $70 = $115).
- Q3. (D) — EK 1.7.A.1: a single owner with no separate legal entity and pass-through personal taxation is a sole proprietorship.
- Q4. (C) — EK 1.7.A.3: an LLC provides limited personal liability that a sole proprietorship lacks; it does not confer public stock or tax exemption.
- Q5. (B) — EK 1.8.A.1: producing customized units individually by hand is an artisan process, contrasted with mass production.

Unit 2: Marketing

Set 3 — Brightpath Tutoring Segments (Unit 2, Topic 2.1)

Brightpath Tutoring is a subscription tutoring service. Last quarter it spent $18,000 on marketing and acquired 600 new customers. The table shows its three customer segments.

Segment	Avg. Monthly Fee	Avg. Months Retained	Share of New Customers
Exam Crammers	$90	3	50%
Steady Learners	$60	12	30%
Enrichment Families	$75	8	20%

Q1. What was Brightpath's overall customer acquisition cost (CAC) last quarter?

A. $18
B. $60
C. $30
D. $300

Q2. Estimating customer lifetime value (CLV) as average monthly fee × months retained, which segment has the highest CLV?

A. Exam Crammers ($270)
B. Steady Learners ($720)
C. Enrichment Families ($600)
D. All three are equal

Q3. Using the CAC from Q1, which segment delivers the highest CLV-to-CAC ratio?

A. Steady Learners (24 : 1)
B. Exam Crammers (9 : 1)
C. Enrichment Families (20 : 1)
D. The ratios are identical

Q4. Dividing customers into Exam Crammers, Steady Learners, and Enrichment Families is an example of

A. value capture
B. market segmentation
C. penetration pricing
D. product positioning

Q5. Brightpath wants to grow lifetime value. Which action targets the biggest CLV driver revealed by the data?

A. Raising the monthly fee for Exam Crammers only
B. Acquiring more Exam Crammers because they pay the highest monthly fee
C. Cutting the marketing budget in half
D. Improving retention so more customers stay closer to the 12-month Steady Learner length

Answer key for Set 3:

- Q1. (C) — EK 2.1.C.2: CAC = total marketing cost ÷ customers acquired = $18,000 ÷ 600 = $30.
- Q2. (B) — EK 2.1.C.3: CLV is total expected spend; Steady Learners = $60 × 12 = $720, above $270 and $600.
- Q3. (A) — EK 2.1.C.2–C.3: $720 ÷ $30 = 24, versus 9 ($270 ÷ $30) and 20 ($600 ÷ $30).
- Q4. (B) — EK 2.1.B.1: grouping customers by shared characteristics is market segmentation.
- Q5. (D) — EK 2.1.C.3: months retained, not monthly fee, drives the CLV gap here, so improving retention is the highest-leverage move; the highest-fee segment (Exam Crammers) actually has the lowest CLV because it churns fastest, so chasing it or raising its price does not help.

Set 4 — Loop Audio's Price Test (Unit 2, Topics 2.3, 2.5)

Loop Audio sells wireless earbuds online. To choose a price, it ran a test: each visitor was randomly shown one of two prices, and the company recorded purchases out of 4,000 visitors per version.

Version	Price	Visitors	Units Sold
A	$59	4,000	320
B	$49	4,000	480

Q1. This pricing test is best described as which primary-research method?

A. An A/B test (controlled experiment)
B. A focus group
C. A secondary-source analysis
D. A customer-profile study

Q2. What was the conversion rate (units sold ÷ visitors) for Version B?

A. 8%
B. 12%
C. 10%
D. 16%

Q3. Which version generated more revenue from these visitors?

A. Version A ($18,880)
B. It cannot be determined
C. The two versions tie
D. Version B ($23,520)

Q4. Randomly assigning which price each visitor sees matters primarily because it

A. reduces bias, so the sales difference can be attributed to price
B. guarantees the test will be profitable
C. removes the need for a hypothesis
D. makes the overall sample larger

Q5. Loop Audio sets the $49 introductory price below the market to win buyers fast, planning to raise it once it has reviews and market share. This is best described as

A. value-based pricing
B. penetration pricing
C. cost-based pricing
D. price gouging

Answer key for Set 4:

- Q1. (A) — EK 2.3.C: an A/B test is a controlled primary-research experiment comparing two versions.
- Q2. (B) — EK 2.3.D: 480 ÷ 4,000 = 12% (Version A converts at 320 ÷ 4,000 = 8%).
- Q3. (D) — EK 2.3.C: revenue = 480 × $49 = $23,520, above 320 × $59 = $18,880.
- Q4. (A) — EK 2.3.C.8: random assignment controls for bias so an observed difference can be attributed to the variable tested.
- Q5. (B) — EK 2.5.A.6: pricing low to attract customers and raising the price later is penetration pricing.

Unit 3: Personal and Business Finance

Set 5 — Trailhead Gear Income Statement (Unit 3, Topic 3.6)

Selected annual results for Trailhead Gear, a hiking-equipment retailer.

Line Item	Amount
Revenue	$600,000
Cost of Goods Sold	$360,000
Gross Profit	?
Operating Expenses	$150,000
Operating Income	?
Interest Expense	$10,000
Income Tax Expense	$16,000
Net Income	?

Q1. What is Trailhead Gear's gross profit?

A. $240,000
B. $150,000
C. $360,000
D. $450,000

Q2. What is Trailhead Gear's operating income?

A. $80,000
B. $240,000
C. $150,000
D. $90,000

Q3. What is Trailhead Gear's net income?

A. $80,000
B. $74,000
C. $64,000
D. $90,000

Q4. The gross profit margin (gross profit ÷ revenue) is closest to

A. 15%
B. 25%
C. 60%
D. 40%

Q5. The net profit margin (net income ÷ revenue) is closest to

A. 6%
B. 15%
C. 11%
D. 40%

Answer key for Set 5:

- Q1. (A) — EK 3.6.A.4: gross profit = revenue – COGS = $600,000 – $360,000 = $240,000.
- Q2. (D) — EK 3.6.A.6: operating income = gross profit – operating expenses = $240,000 – $150,000 = $90,000.
- Q3. (C) — EK 3.6.A.9: net income = operating income – interest – taxes = $90,000 – $10,000 – $16,000 = $64,000.
- Q4. (D) — EK 3.6.B.2: gross margin = $240,000 ÷ $600,000 = 40%.
- Q5. (C) — EK 3.6.B.4: net margin = $64,000 ÷ $600,000 ≈ 10.7%, closest to 11%.

Set 6 — Marcus's Net Worth (Unit 3, Topics 3.7, 3.2)

Marcus, age 26, lists his personal assets and liabilities. His credit card charges 23% APR, his car loan 6%, and his federal student loan 5%.

Item	Amount
Checking + savings	$6,500
Car (current value)	$12,000
Investment account	$8,500
Student loan balance	$18,000
Car loan balance	$7,000
Credit card balance	$2,500

Q1. What are Marcus's total personal assets?

A. $19,000
B. $54,500
C. $27,500
D. $27,000

Q2. What is Marcus's net worth?

A. $500
B. –$500
C. $6,000
D. $27,000

Q3. Marcus has $300 extra each month for debt payoff. Using the highest-interest-first ("avalanche") strategy, which balance should he target first?

A. Credit card (23% APR)
B. Car loan (6% APR)
C. Student loan (5% APR)
D. Split evenly across all three

Q4. With respect to his car alone (worth $12,000, loan $7,000), Marcus has

A. negative equity of $5,000
B. no equity
C. a net liability of $19,000
D. positive equity of $5,000

Q5. Which action would increase Marcus's net worth, holding all else equal?

A. Transferring $2,500 from savings to pay off the credit card
B. Financing a $1,000 vacation on the credit card
C. Directing part of each month's income to reduce debt instead of spending it on wants
D. Selling the car for $12,000 and spending the proceeds

Answer key for Set 6:

- Q1. (D) — balance-sheet assets = $6,500 + $12,000 + $8,500 = $27,000.
- Q2. (B) — net worth = assets – liabilities = $27,000 – ($18,000 + $7,000 + $2,500) = $27,000 – $27,500 = –$500.
- Q3. (A) — EK 3.2.C: paying the highest-APR debt first (the 23% credit card) reduces the most interest per dollar.
- Q4. (D) — equity in an asset = asset value – related debt = $12,000 – $7,000 = $5,000 positive.
- Q5. (C) — net worth rises only when earned income (not an existing asset) reduces a liability or adds an asset; (A) leaves it unchanged (asset and liability both fall $2,500), while (B) finances a want on credit and (D) sells an asset and spends the proceeds — both lower it.

Unit 4: Management and Strategy

Set 7 — Northgate Fitness KPI Dashboard (Unit 4, Topics 4.1, 4.2)

Northgate Fitness operates a chain of gyms. The leadership team reviews the KPI dashboard below.

KPI	Last Year	This Year
Membership revenue	$2,000,000	$2,300,000
Member retention rate	72%	66%
Net promoter score	+30	+18
Operating profit margin	14%	12%
New members acquired	1,800	2,400

Q1. Which of these is a non-financial KPI?

A. Membership revenue
B. Member retention rate
C. Operating profit margin
D. None of these are non-financial

Q2. Revenue grew this year. Which pair of KPIs most strongly signals that the growth may not be sustainable?

A. Retention rate fell and NPS fell, signaling weaker loyalty
B. New members acquired and revenue both rose
C. Operating margin and revenue both rose
D. NPS and retention both rose

Q3. Membership revenue rose from $2,000,000 to $2,300,000. The percentage change is

A. 15%
B. 13%
C. 30%
D. 87%

Q4. The team sets a goal: “Raise member retention from 66% to 75% within 12 months by launching a member-coaching program.” This is a SMART goal mainly because it is

A. specific, measurable, and time-bound
B. simple and inexpensive
C. mandatory and recurring
D. ambitious but deliberately vague

Q5. When the leadership team compares these results against its targets, which management function is it performing?

A. Controlling
B. Organizing
C. Leading
D. Planning

Answer key for Set 7:

- Q1. (B) — non-financial KPIs measure things like customer satisfaction and retention rather than dollars.
- Q2. (A) — falling retention and NPS indicate weakening loyalty, so revenue driven by heavy new-member acquisition may not hold.
- Q3. (A) — % change = ($2,300,000 – $2,000,000) ÷ $2,000,000 = 15%.
- Q4. (A) — a SMART goal is Specific, Measurable, Achievable, Relevant, and Time-bound; the retention target and 12-month window supply those traits.
- Q5. (A) — comparing actual performance to standards and targets is the controlling function.

Set 8 — StreamFit's Five Forces and SWOT (Unit 4, Topic 4.4)

StreamFit is a startup offering on-demand workout videos by subscription. It competes with several established apps, customers can cancel and switch easily, and many people substitute free workout videos on social platforms. The founders build the SWOT grid below.

StreamFit SWOT	
Strengths	Proprietary AI workout-personalization engine; low churn among premium users
Weaknesses	Small content library; limited marketing budget
Opportunities	Growing home-fitness market; partnerships with wearable-device makers
Threats	Free workout content on social platforms; well-funded competitors

Q1. Customers can cancel and switch apps easily. This most directly increases which of Porter's Five Forces?

A. Threat of new entrants
B. Bargaining power of buyers
C. Bargaining power of suppliers
D. Threat of substitutes

Q2. Free workout videos on social platforms are best classified as which force?

A. Bargaining power of suppliers
B. Threat of substitutes
C. Competitive rivalry
D. Threat of new entrants

Q3. In the SWOT grid, the proprietary AI personalization engine is best categorized as

A. an opportunity (external)
B. a weakness (internal)
C. a threat (external)
D. a strength (internal)

Q4. Which item in the grid is an external factor?

A. Small content library
B. Proprietary AI engine
C. Partnerships with wearable-device makers
D. Low churn among premium users

Q5. Which strategy best uses a listed strength to address a listed threat (an “ST” strategy)?

A. Cut marketing spending to save money
B. Expand into an unrelated industry
C. Promote the AI personalization engine as a differentiator that free, generic content cannot match
D. Lower prices below every competitor regardless of cost

Answer key for Set 8:

- Q1. (B) — low switching costs raise the bargaining power of buyers, who can leave for a rival at any time.
- Q2. (B) — free content from a different category that meets the same need is a substitute (threat of substitutes).
- Q3. (D) — a capability the company owns is an internal strength.
- Q4. (C) — opportunities and threats are external; the wearable-maker partnership is an opportunity (external), unlike the internal items.
- Q5. (C) — an ST strategy deploys an internal strength (AI differentiation) against an external threat (free substitutes and funded rivals).

Unit 5: Personal Goals, Budgeting, and Investing

Set 9 — Jordan’s Pay Stub (Unit 5, Topic 5.1)

Jordan is a single filer paid twice a month (semi-monthly). Social Security is withheld at 6.2% of gross pay and Medicare at 1.45% of gross pay. The stub below is for one pay period.

Line	Amount
Gross pay	$2,400.00
Federal income tax withheld	$264.00
State income tax withheld	$96.00
Social Security (6.2%)	?
Medicare (1.45%)	?
401(k) contribution (5%)	$120.00
Net pay	?

Q1. What is Jordan’s Social Security deduction for this pay period?

A. $34.80
B. $120.00
C. $148.80
D. $264.00

Q2. What is Jordan’s Medicare deduction for this pay period?

A. $120.00
B. $34.80
C. $148.80
D. $183.60

Q3. Jordan’s net (take-home) pay for this period is closest to

A. $1,736
B. $1,556
C. $1,856
D. $2,016

Q4. Jordan's traditional 401(k) contribution lowers taxable income for federal income tax. It is best described as

A. a mandatory payroll tax
B. an employer match
C. a pre-tax (tax-deferred) voluntary deduction
D. an after-tax Roth contribution

Q5. Jordan applies the 50/30/20 rule to monthly take-home pay of about $3,473 (two pay periods). Roughly how much should go to "wants"?

A. $694
B. $1,736
C. $1,563
D. $1,042

Answer key for Set 9:

- Q1. (C) — Social Security = 6.2% × $2,400 = $148.80.
- Q2. (B) — Medicare = 1.45% × $2,400 = $34.80.
- Q3. (A) — net = $2,400 − ($264 + $96 + $148.80 + $34.80 + $120) = $2,400 − $663.60 = $1,736.40.
- Q4. (C) — a traditional 401(k) contribution is a voluntary pre-tax deduction that defers income tax; it is not a mandatory tax or an employer match.
- Q5. (D) — the 50/30/20 rule puts 30% toward wants: 0.30 × $3,473 ≈ $1,042 (50% ≈ $1,736 needs; 20% ≈ $694 savings).

Set 10 — Priya's Retirement Portfolio (Unit 5, Topic 5.3)

Priya, age 30, has $20,000 to invest for retirement in a Roth IRA. She assumes a long-term average return of 8% per year and builds the diversified allocation below.

Asset Class	Allocation
Stock index fund	70%
Bond index fund	20%
Real estate fund	10%

Q1. Using the Rule of 72, about how long will it take Priya's investment to double at an 8% annual return?

A. 6 years
B. 9 years
C. 8 years
D. 12 years

Q2. If the money doubles roughly every 9 years and Priya adds nothing more, about how much is the $20,000 worth after 18 years?

A. $40,000
B. $60,000
C. $80,000
D. $160,000

Q3. Spreading money across stock, bond, and real estate funds is diversification, which most directly reduces

A. the tax owed on contributions
B. the rate of inflation
C. unsystematic (asset-specific) risk
D. the funds' management fees

Q4. The defining tax feature of Priya's Roth IRA is that

A. contributions are made after tax and qualified withdrawals in retirement are tax-free
B. contributions are deductible now and withdrawals are taxed later
C. all investment growth is taxed every year
D. it receives no federal tax advantage

Q5. Priya chooses low-cost index funds instead of picking individual stocks. The main advantage of an index fund is that it

A. guarantees a positive return every year
B. provides instant diversification across many companies at low cost
C. eliminates all investment risk
D. is insured by the FDIC up to $250,000

Answer key for Set 10:

- Q1. (B) — Rule of 72: years to double = 72 ÷ 8 = 9.
- Q2. (C) — 18 years ÷ 9 = 2 doublings, so $20,000 → $40,000 → $80,000.
- Q3. (C) — diversification reduces unsystematic (asset- or firm-specific) risk; broad market risk remains.
- Q4. (A) — a Roth IRA is funded with after-tax dollars, and qualified retirement withdrawals are tax-free.
- Q5. (B) — an index fund gives low-cost, instant diversification; it does not guarantee returns, remove risk, or carry FDIC insurance (that covers bank deposits, not investments).

Notes for students

- These 10 sets total 50 questions, weighted toward the same domains as the exam, with personal finance at roughly one-fifth of the items.
- Difficulty is mixed: single-step recall (e.g., classifying a PESTEL or SWOT item), multi-step calculation (income statement, net worth, pay stub), and interpretation (KPI dashboards, segment data).
- Excluded content is honored — no price-elasticity calculations and no supply/demand graphs appear here, matching the framework's exclusion statements.

- Work each set under timed conditions (about 75–90 seconds per question), then read the answer-key explanation and trace it back to the EK statement cited. Register at https://synprep.com/ap/ap-business to receive new sets as they ship.