The Simple AP® Microeconomics Unit 1 Cheat Sheet

1.1 Scarcity

Core Ideas

Scarcity: unlimited wants but limited resources, so every society must choose what to produce.
Positive = testable claim ("price rose 5%").
Normative = opinion ("taxes should fall").
Micro = single markets & choices by households & firms; **macro** = the whole economy.

Factors of Production

Factor	Example	Payment
Land	Oil, forests	Rent
Labor	Workers' time	Wages
Capital	Tools, factories	Interest
Entrepreneurship	Risk-taking, ideas	Profit

Capital = human-made tools & equipment, NOT money. **Human capital** = skills & education.

Opportunity Cost

Opportunity cost = the value of the next-best alternative you give up when you make a choice.
Ex: you skip a $60 work shift to study → the $60 you didn't earn is part of the cost of studying.
Trade-offs exist for people, firms & governments: more of 1 thing means less of another.

Incentives

Incentives: people respond to costs & benefits; a higher price → buyers buy less, sellers sell more.

⚠ Money is NOT a factor of production; capital means tools, machines & buildings.

✓ "Should" or a value word → normative; a testable claim → positive statement.

1.2 Economic Systems

3 Basic Questions

Every economy must decide what to produce, how to produce it & who gets it; systems differ.

System	Who decides	Example
Market	Prices, buyers	Mostly US
Command	Central govt	Former USSR
Traditional	Custom, history	Subsistence
Mixed	Markets + govt	Most nations

Market Economies

Price system: prices signal scarcity & guide resources to their most valued uses, w/o a planner.
Property rights: secure ownership gives people the incentive to invest, trade & use resources well.
Invisible hand: self-interest + competition → firms make what buyers want at low cost.

Circular Flow

Product market: households buy goods. **Factor market**: firms buy land, labor & capital.
Money flows 1 way; goods, services & resources flow the opposite way around the loop.

Command Economies

Central planners set output & prices; this leads to weak incentives & frequent shortages.

⚠ Households SELL factors (labor) & BUY products; firms do the reverse.

✓ Most real economies are mixed: markets plus some government decisions & rules.

1.3 The PPC

Production Possibilities Curve

PPC: every max combo of 2 goods an economy can make w/ all resources fully used & fixed tech.

Point	Meaning
On the PPC	Efficient (full use)
Inside	Inefficient / unemployed
Outside	Unattainable now

Efficient: any point ON the PPC. **Inefficient**: inside (unemployed or wasted resources).
Allocative efficiency: the point on the PPC that society values most, given what people want.

Opportunity Cost on a PPC

Ex: (10 pizza, 20 robots) → (14 pizza, 12 robots): 4 pizza cost 8 robots, so 1 pizza = 2 robots.
Slope = the OC of the x-axis good; a steeper PPC means a higher OC of the x-axis good.

Shape

Bowed out: increasing OC b/c resources are specialized, not equally good at both goods.
Straight line: constant OC b/c resources are equally good at making both goods.
Law of increasing OC: each extra unit of X costs MORE Y as less-suited resources shift.
Constant OC ex: (0, 30) → (10, 20) → (20, 10): each 10 X costs 10 Y → straight-line PPC.

⚠ OC = what you GIVE UP ÷ what you GAIN; answer in units of the good given up.

✓ FRQ: label both axes & draw a bowed-out PPC unless you're told OC is constant.

1.3 PPC Shifts & Growth

What Shifts the PPC

Change	Effect
More resources	Shifts out
Better technology	Shifts out
More human capital	Shifts out
Disaster, war loss	Shifts in
Unemployment	Point inside, no shift

Tech in 1 good only → the PPC pivots out along that good's axis; the other end stays put.

Capital vs. Consumer Goods

Today vs. tomorrow: making more capital goods now → a bigger outward PPC shift in the future.
Ex: Country A makes more capital goods than B → A's PPC grows faster, but A consumes less now.

Moves vs. Shifts

Movement along: picking a different combo w/ the same resources. **Shift**: resources or tech change.
Recession = a point inside the PPC; recovering moves the point out to the curve, w/ no shift.

Economic Growth

Growth = an outward PPC shift, so the economy can make more of BOTH goods.
Trade lets a nation consume outside its PPC.

⚠ Unemployment does NOT shift the PPC; it puts the economy at a point inside it.

✓ Shift only the axis of the good whose production ability actually changed.

1.4 Comparative Advantage

Absolute vs. Comparative

Absolute advantage: can make MORE of a good w/ the same resources than the other producer.
Comparative advantage: a LOWER opportunity cost for a good; it decides who specializes.

Output Method

Producer	Wheat	Cloth
Ana	10	20
Ben	6	6

OC (output): other ÷ own. Ana: 1 wheat = 2 cloth. Ben: 1 wheat = 1 cloth. Ben's OC of wheat is lower.
Result: Ben specializes in wheat & Ana in cloth, even though Ana makes more of both goods.

Input Method

Input data (hours per unit): OC = own ÷ other; flip the rule b/c fewer hours = more productive.
Ex input: Ana needs 2 hrs/wheat & 1 hr/cloth → OC of 1 wheat = 2 cloth, the same answer.

Specialize & Trade

Each specializes in its lower-OC good & trades; both can then consume beyond their own PPCs.
Lower OC wins: comparative advantage is about what you give up, not how much you can make.
Ex: Ana has absolute advantage in both.

⚠ Output tables → "other over own"; input tables → "own over other." Check units 1st.

✓ No one has comparative advantage in both goods, even w/ absolute advantage in both.

1.4 Terms of Trade

Mutually Beneficial Trade

Terms of trade = the price of 1 good in units of the other that 2 trading partners agree on.
Rule: terms must fall BETWEEN the 2 producers' opportunity costs for both sides to gain.
Ex: Ben's OC of 1 wheat = 1 cloth; Ana's = 2 cloth → any price between 1 & 2 cloth per wheat works.

Check a Proposed Deal

Terms (cloth per wheat)	Ana (buys wheat)	Ben (sells wheat)
0.8	Gains	Loses
1.5	Gains	Gains
2.5	Loses	Gains

Ana gains if she pays < 2 cloth per wheat; **Ben** gains if he gets > 1 cloth per wheat.
Gains split: terms near 1 cloth per wheat favor Ana; terms near 2 cloth favor Ben.

Gains From Trade

Consume outside the PPC: after specializing & trading, each consumes a combo it couldn't make.
Ex: at 1.5 cloth per wheat, Ben trades 4 wheat for 6 cloth; making 6 cloth would cost him 6 wheat.
Absolute advantage in both doesn't stop gains: Ana still gains by trading for wheat.

⚠ Terms outside the range of the 2 OCs mean 1 side loses & won't agree to trade.

✓ FRQ: state each OC, then show the terms lie between them; name who gains & why.

1.5–1.6 Cost-Benefit & Marginal Analysis

Costs & Benefits

Explicit costs = money paid out. **Implicit costs** = value of what you gave up (your time).
Economic profit = revenue − explicit − implicit costs; it's smaller than accounting profit.
Ex implicit cost: quitting a $50K job to run a shop costs $50K, even though no bill arrives.
Sunk costs are spent & can't be recovered, so ignore them when making the next choice.

Thinking at the Margin

Marginal benefit (MB) = extra benefit of 1 more unit; **marginal cost (MC)** = extra cost of it.
Rule: do 1 more unit if MB ≥ MC; stop at the quantity where MB = MC (the best amount).

Hours studied	MB	MC
1	20	5
2	15	8
3	10	10
4	6	13

Ex: study 3 hours (MB = MC = 10); the 4th hour costs 13 but adds only 6, so stop at 3.
Net benefit (total benefit − total cost) is largest where MB = MC, not at max total benefit.
Marginal ≠ average: decide by the NEXT unit.
Ex: $2M spent on a failed app is gone.

⚠ Ignore sunk costs; only future costs & benefits should count in the next decision.

✓ Compare THAT unit's MB & MC.

1.6 Consumer Choice

Utility

Marginal utility (MU) = the extra satisfaction from consuming 1 more unit of a good.
Diminishing MU: each extra unit adds less satisfaction than the one before it (3rd slice < 1st).
Total utility peaks when MU = 0, then falls.

Utility-Maximizing Rule

Rule: spend your whole budget so $MU_A/P_A = MU_B/P_B$ (equal utility per dollar).

Unit	MU taco ($2)	MU/P	MU pizza ($4)	MU/P
1	20	10	40	10
2	16	8	32	8
3	12	6	24	6

Budget $12: buy 2 tacos ($4) + 2 pizzas ($8); the last MU/P = 8 for both & all $12 is spent.

Fix the Imbalance

If $MU_A/P_A > MU_B/P_B$: buy more A & less B until the 2 ratios become equal again over time.
Price ↓ for A → MU_A/P_A ↑ → buy more A; that's why the demand curve slopes down.

Exam Weight

Unit 1 = 12–15% of AP Micro: 60 MCQs (70 min) + 3 FRQs (60 min); FRQs love PPCs.

⚠ Compare MU PER DOLLAR, not MU alone; a pricey good can be a worse buy.

✓ Make an MU/P column for each good & pick the highest MU/P each time you spend.