The Simple AP® Macroeconomics Unit 1 Cheat Sheet

1.1 Scarcity & Economic Systems

Core Ideas

Scarcity: unlimited wants, limited resources → every society must make choices.
Micro = individuals & firms. **Macro** = whole economy (GDP, inflation, jobs).
Positive = testable fact (data). **Normative** = opinion or value judgment, often w/ "should."

Factors of Production

Factor	Payment
Land (natural res.)	Rent
Labor (workers)	Wages
Capital (tools)	Interest
Entrepreneurship	Profit

Capital = tools, machines & factories used to make goods, NOT money, stocks or bonds.
Human capital = workers' skills & education.

Economic Systems

Market: prices & private choices decide.
Command: govt decides. **Mixed**: both (U.S.).
Circular flow: households sell resources to firms; firms sell goods to households.

Thinking at the Margin

Marginal analysis: do 1 more unit if the extra benefit (MB) ≥ extra cost (MC).
Incentives: people respond to costs & benefits.

⚠ Money is NOT a factor of production.

✓ "Should" in a statement → normative.

1.2 Opportunity Cost & the PPC

Opportunity Cost

Opportunity cost = value of the next-best option you give up, not the sum of all options.
Trade-off: getting more of 1 thing means less of another; time & resources always cost.

The PPC

PPC (production possibilities curve) = all max combos of 2 goods using all resources.

Point	Meaning
On the curve	Efficient
Inside	Inefficient / unemployed
Outside	Can't reach (yet)

Shape of the PPC

Bowed out: **increasing** opportunity cost b/c resources are specialized, not equally good.
Straight line: **constant** opportunity cost b/c resources adapt easily to either good.
Increasing OC: each extra unit of X costs MORE Y.
Slope = opportunity cost of the x-axis good.

Calculating OC

Example: gain 4 pizzas, lose 8 robots → OC of 1 pizza = 8 ÷ 4 = **2 robots** (give up ÷ gain).
Productive efficiency = any point on the PPC.
Allocative efficiency = the point on the PPC that society wants most (MB = MC).

⚠ OC = what you give up ÷ what you gain.

✓ Label both axes w/ the 2 goods; draw it bowed out unless the OC is constant.

1.2 PPC Shifts & Economic Growth

What Shifts the PPC

Change	PPC Effect
More resources	Shift out
Better technology	Shift out
War, disaster	Shift in
Tech for 1 good	Pivot on 1 axis

Economic growth = PPC shifts outward.
More workers (immigration) or more machines, factories & better tools → PPC shifts out.

Moves vs. Shifts

Unemployment / recession → point moves INSIDE the curve; the curve doesn't move.
Shift in happens only when resources are actually lost (war, natural disaster, emigration).

Capital vs. Consumer Goods

More capital goods now (machines) → fewer consumer goods today, more growth later.
More consumer goods now → better living standard today, but slower growth later.

PPC & Trade

Trade lets a country consume beyond its PPC, but doesn't shift it; its production limit is unchanged.

⚠ Unemployment = point inside the PPC, NOT a shift; the curve itself stays put.

⚠ A shift IN needs resources to be lost or destroyed, not just sitting idle in a recession.

✓ For growth, draw a new PPC outside the old one & label both curves clearly.

1.3 Comparative Advantage & Trade

Key Definitions

Absolute advantage: can produce MORE.
Comparative advantage: produces at a LOWER opportunity cost. Trade is based on this.
Specialize in the lower-OC good, then trade → total output ↑ → both countries gain.

Worked Example

Per worker	Wheat	Cloth
U.S.	10	5
Mexico	6	6

U.S.: 1 cloth costs 10 ÷ 5 = 2 wheat. **Mexico**: 1 cloth costs 6 ÷ 6 = 1 wheat. Cloth → Mexico.
Result: U.S. specializes in wheat; Mexico in cloth.
Why: U.S. gives up only 0.5 cloth per wheat; Mexico gives up 1 full cloth per wheat.

Output vs. Input

Output (units made): "Other Over." **Input** (hours needed): "IOU" (Input: Other Under).
Input example: 2 hrs/shirt, 4 hrs/hat → OC of 1 shirt = 2 ÷ 4 = 0.5 hat (input: other under).

Terms of Trade

Good terms fall BETWEEN the 2 countries' OCs: 1 cloth for 1–2 wheat (e.g., 1.5 wheat).
Gains from trade: after trading, both countries can consume outside their own PPC.

⚠ Absolute advantage in both goods ≠ comparative advantage in both.

✓ Find BOTH countries' OC for BOTH goods first.

1.4 Demand

Law of Demand

Law of demand: price ↑ → quantity demanded ↓ (inverse). D curve slopes downward.
Why: higher price → people switch to cheaper substitutes & can afford less of it.

Shift vs. Movement

Quantity demanded changes = move ALONG the curve (only the good's own price).
Demand changes = the whole curve SHIFTS b/c a non-price determinant changed.

Shifters (TRIBE)

Determinant	D shifts right if…
Tastes	Good becomes popular
Related goods	Substitute price ↑
Income	Normal good, income ↑
Buyers	More buyers
Expectations	Price expected to ↑

Substitutes replace each other (Coke/Pepsi); **complements** go together (cars/gas).
Example: coffee price ↑ → demand for tea (substitute) ↑ & cream (complement) ↓.
Inferior good: income ↑ → demand ↓ (e.g., bus rides, instant noodles, store brands).
Normal good: income ↑ → demand ↑ (most goods, e.g., restaurant meals, new cars).

⚠ A good's own price never shifts its demand curve; it moves along the curve.

✓ Write "demand increases" for a shift, "quantity demanded increases" for a movement.

1.5 Supply

Law of Supply

Law of supply: price ↑ → quantity supplied ↑ (direct relationship). S curve slopes upward.
Why: a higher price means more profit per unit → firms make & sell more of the good.

Shift vs. Movement

Quantity supplied changes = movement along the S curve, caused by the good's own price only.
Supply changes = the whole S curve shifts (right = more, left = less at every price).

Shifters (ROTTEN)

Determinant	Example
Resource costs	Wages ↑ → S ↓
Other goods	Other crop pays more → S ↓
Taxes	New tax → S ↓
Technology	Better tech → S ↑
Expectations	Price expected ↑ → S ↓ now
Number of sellers	More firms → S ↑

Subsidy (govt payment to firms) → supply ↑.
Input costs are the most-tested shifter: wages, materials or energy ↑ → S shifts LEFT.
Weather: a freeze destroys crops → supply ↓.
Expectations: if firms expect higher prices later, they hold goods back → supply ↓ now.

⚠ "Supply increases" = shift RIGHT, even though the new curve looks lower on the graph.

✓ Changes cost of making it? → shift S.

1.6 Market Equilibrium

Equilibrium

Equilibrium: quantity demanded = quantity supplied; the market clears at P*.
Shortage: price too low → Qd > Qs → price rises.
Surplus: price too high → Qs > Qd → price falls.
Prices as signals: rising price tells firms to make more & tells buyers to buy less of it.

Single Shifts

Shift	Price	Quantity
D ↑	↑	↑
D ↓	↓	↓
S ↑	↓	↑
S ↓	↑	↓

Double Shifts

Both shift: one of P or Q is certain; the other is **indeterminate** (depends on size).
Same direction → Q is certain. **Opposite** directions → P is certain. Other = ?

Both shift	Price	Quantity
D ↑, S ↑	?	↑
D ↑, S ↓	↑	?

Example: a freeze destroys the orange crop → S ↓ → orange price ↑, quantity sold ↓.
Mechanism: shortage at the old price → price rises → Qs ↑, Qd ↓ until a new equilibrium.

⚠ When D shifts, S does NOT shift.

✓ Explain the steps, not just the result.

Graphs & FRQ Moves

Graphing Rules

Label both axes, every curve, and old & new equilibrium (P_1, Q_1 → P_2, Q_2) clearly.
Arrows show which way a curve shifts.
Match words & graph: your written explanation must agree w/ what you drew on it.
Dashed lines from each equilibrium point to both axes show the P & Q values you name.

FRQ Task Verbs

Verb	Do This
Identify	State answer
Explain	Cause → effect
Calculate	Show work
Draw	Labeled graph

Common Traps

Shift vs. movement: own price = movement.
Absolute ≠ comparative advantage.
Normative = "should"; **positive** = testable.
Directional answers: say increase, decrease or no change; "it changes" earns nothing.
Opportunity cost: give up ÷ gain. Don't flip it.
Unemployment = point inside the PPC, not a shift.
Double shift: 1 of P or Q is indeterminate; say "cannot be determined," don't guess.
Ceteris paribus = hold everything else constant.

⚠ Unlabeled graphs lose points.

✓ Calculators are allowed, but show your setup.