What is the Production Possibilities Frontier?

Worksheet

The PPF is a curve representing the maximum output combinations of two goods given resource constraints. Points on the curve are efficient; points inside show waste.

$$OC = \text{Goods Foregone}/\text{Goods Gained}$$

OC = Opportunity Cost (units)
Goods Foregone = Units of good A given up (units)
Goods Gained = Units of good B obtained (units)

Questions

1. If making 10 pizzas costs 5 salads, what is the OC of one pizza?
A) 2 salads
B) 0.5 salads
C) 50 salads
D) 10 salads

2. A point on the PPF curve means...
A) resources are wasted
B) production is efficient
C) there is unemployment
D) nothing can be made

3. PPF curves usually slope...
A) upward right
B) downward right
C) vertical
D) horizontal

4. What causes a PPF to shift outward?
A) recession
B) laziness
C) better technology or more resources
D) less trade

5. An economy can produce 50 cars or 200 bikes. What is the opportunity cost of 1 car?

6. A farmer can grow 100 bushels of corn or 60 bushels of wheat on one field. Opportunity cost of 1 bushel of corn?

7. Country A can make 30 phones or 12 tablets. If they decide to make 15 phones, what's the OC per tablet?

8. Define: What is the Production Possibilities Frontier?

9. Define: What does a point inside the PPF mean?

10. Define: Define opportunity cost.

Answer Key

1. B) 0.5 salads — OC = 5÷10 = 0.5 salads per pizza.
2. B) production is efficient — Every point on the curve uses resources efficiently.
3. B) downward right — As one good increases, the other decreases due to resource limits.
4. C) better technology or more resources — New resources or technology allow more total production.
5. To make 1 car, they give up 200/50 = 4 bikes OC of 1 car = 4 bikes
6. To grow 1 bushel of corn, give up 60/100 = 0.6 bushels wheat OC of 1 corn = 0.6 wheat
7. 15 phones → 6 tablets forgone (half production) OC of 1 tablet = 15/6 = 2.5 phones
8. A curve showing the maximum output combinations of two goods an economy can produce with fixed resources.
9. The economy is not using all resources efficiently—there is waste or unemployment.
10. The value of the good you give up to get another good.