AP Microeconomics Name: ____________ Score: ______

1. The law of demand says that, other things equal, when price rises the quantity demanded:
   - ☐ falls
   - ☐ rises
   - ☐ stays the same
   - ☐ doubles
2. The law of supply says that, other things equal, when price rises the quantity supplied:
   - ☐ rises
   - ☐ falls
   - ☐ stays the same
   - ☐ becomes negative
3. Price elasticity of demand is calculated as:
   - ☐ % change in quantity demanded ÷ % change in price
   - ☐ % change in price ÷ % change in quantity demanded
   - ☐ price × quantity
   - ☐ change in quantity ÷ change in price
4. Price elasticity of supply is normally:
   - ☐ positive, because price and quantity supplied move together
   - ☐ negative, because price and quantity move apart
   - ☐ always zero
   - ☐ always exactly one
5. Two goods have a **positive** cross-price elasticity. They are:
   - ☐ substitutes
   - ☐ complements
   - ☐ both inferior goods
   - ☐ unrelated
6. Price rises from 4 to 6; quantity demanded falls from 120 to 80. Using the midpoint method, what is |PED|?

   ____

7. Price rises causing a 30% rise in quantity supplied and a 10% rise in price. What is PES?

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8. Printers and ink are complements, so their cross-price elasticity is negative.

☐ True ☐ False

9. Demand is $P = 20 - Q$ and supply is $P = 2 + Q$. What is the equilibrium quantity Q?

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10. Equilibrium is 5 dollars and 100 units. A price ceiling of 3 dollars gives quantity demanded 140 and quantity supplied 70. What is the size of the shortage?

__________________ units

1. **falls**

   Price and quantity demanded move in opposite directions — an inverse relationship.

2. **rises**

   Price and quantity supplied move in the same direction — a direct relationship.

3. **% change in quantity demanded ÷ % change in price**

   PED divides the percentage change in quantity by the percentage change in price.

4. **positive, because price and quantity supplied move together**

   Supply obeys a direct relationship, so PES is positive.

5. **substitutes**

   Positive XED: a dearer Y sends buyers to X — the goods substitute for each other.

6. **1**

   $\%\Delta Q = -40/100 = -0.40$ and $\%\Delta P = 2/5 = 0.40$, so PED = -1 and |PED| = 1 (unit elastic).

7. **3**

   PES = 30% ÷ 10% = 3 — elastic supply.

8. **True**

   A dearer printer lowers ink demand — a negative XED marks complements.

9. **9**

   Set $20 - Q = 2 + Q$, so $18 = 2Q$ and $Q = 9$.

10. **70 units**

    Shortage = quantity demanded − quantity supplied = 140 − 70 = 70.