

Student activity: 2.1 Demand



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2.1 DEMAND: STUDENT LEARNING ACTIVITY

Answer the questions that follow.

1. DEFINITIONS

Define the following terms:

[10 marks]

- | | |
|--|---|
| <ul style="list-style-type: none"> ▪ Goods ▪ Services ▪ Consumer ▪ Supplier ▪ Factors of production ▪ Quantity demanded ▪ Demand ▪ Market ▪ Competitive markets ▪ Competition ▪ Law of demand ▪ Effective demand ▪ Income effect of a change of price ▪ Substitution effect of a change of price ▪ Income | <ul style="list-style-type: none"> ▪ Demand schedule ▪ Market demand ▪ Determinants of demand ▪ Demand curve ▪ Normal goods ▪ Inferior goods ▪ Related goods ▪ Compliments ▪ Substitutes ▪ Linear function ▪ Variable ▪ Demand function ▪ Coefficient ▪ Inverse relationship ▪ Ceteris paribus |
|--|---|

2. SHORT-ANSWER QUESTIONS

1. Distinguish between a **market** and a **competitive market**.

[4 marks]

2. Distinguish between **product** and **resource** markets.

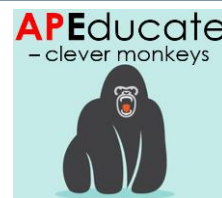
[4 marks]

3. Explain the relationship between price and quantity demanded.

[4 marks]

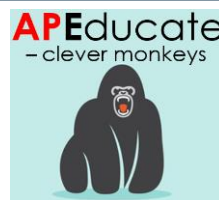
4. Explain the role of the **substitution effect** and the **income effect** of a change in price in explaining the law of demand.

[4 marks]



2.1 Demand

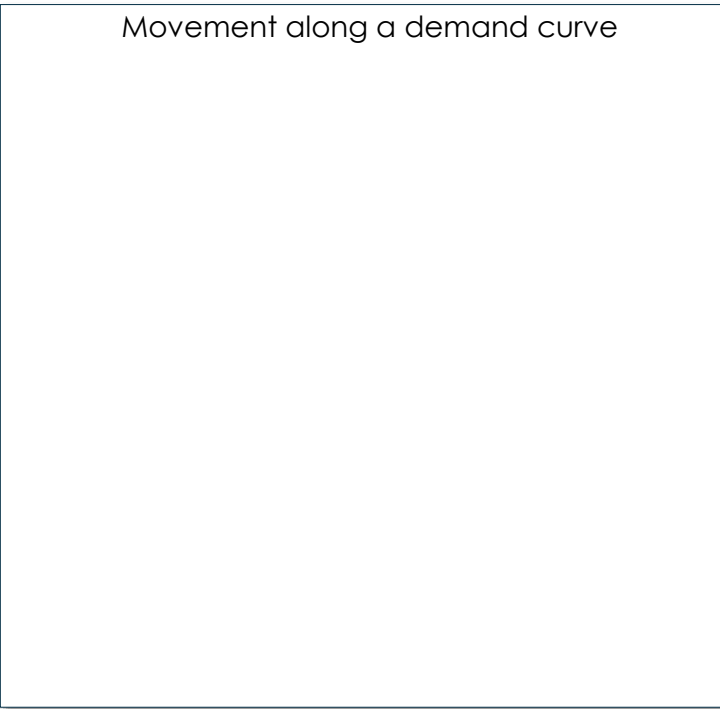
5. Distinguish between a **change in demand** and a change in **quantity demanded**. [4 marks]



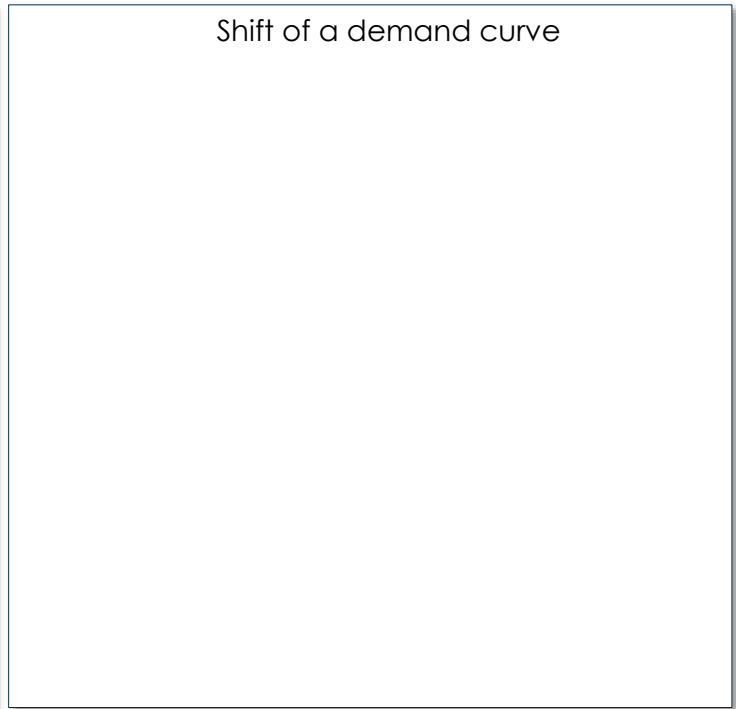
2.1 Demand

6. Use diagrams to contrast a movement along a demand curve and a shift of the demand curve. **[4 marks]**

Movement along a demand curve



Shift of a demand curve



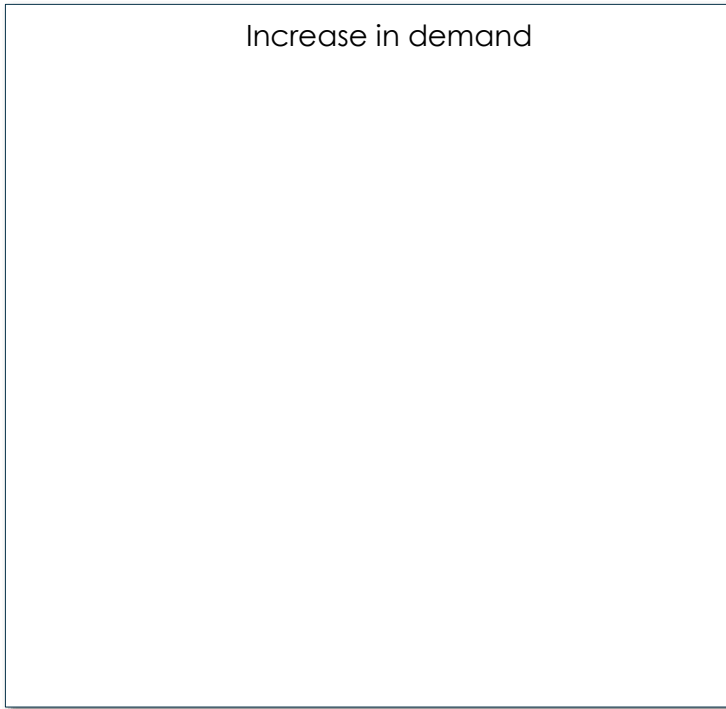
7. Describe the relationship between an individual's consumer demand and the market demand. **[4 marks]**

AP[®] Microeconomics – The Nature and Function of Product Markets
2.1 Demand


8. Use diagrams to contrast an increase in demand and an increase in quantity demanded.

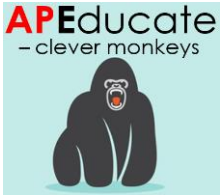
[4 marks]

Increase in demand



Increase in quantity demanded



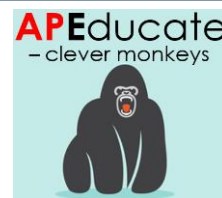


2.1 Demand

9. Explain how the following factors may change the demand for a good or a service: **[10 marks]**

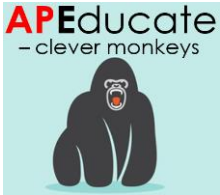
i. Changes in income (for normal **and** inferior goods)

ii. Changes in preferences



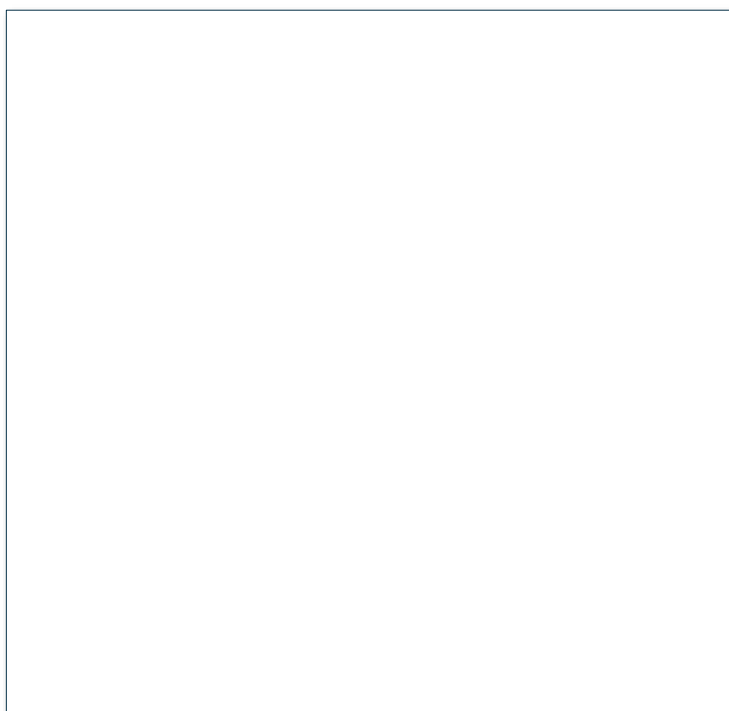
iii. Prices of related goods (for complements **and** substitutes)

| | |
|--|--|
| | |
|--|--|



2.1 Demand

iv. Demographic changes



2.1 Demand

10. Sketch a demand curve from the following information:

[2 marks]

Table 1: Demand schedule for chocolate bars

| Price of a chocolate bar | Quantity of chocolate bars demanded each year |
|--------------------------|---|
| \$1 | 100 |
| \$2 | 80 |
| \$3 | 60 |
| \$4 | 40 |
| \$5 | 20 |



2.1 Demand

11. Using information in Table 1 above, construct a new demand schedule showing the effect of a 20 percent increase in demand for chocolate bars at each price. **[2 marks]**

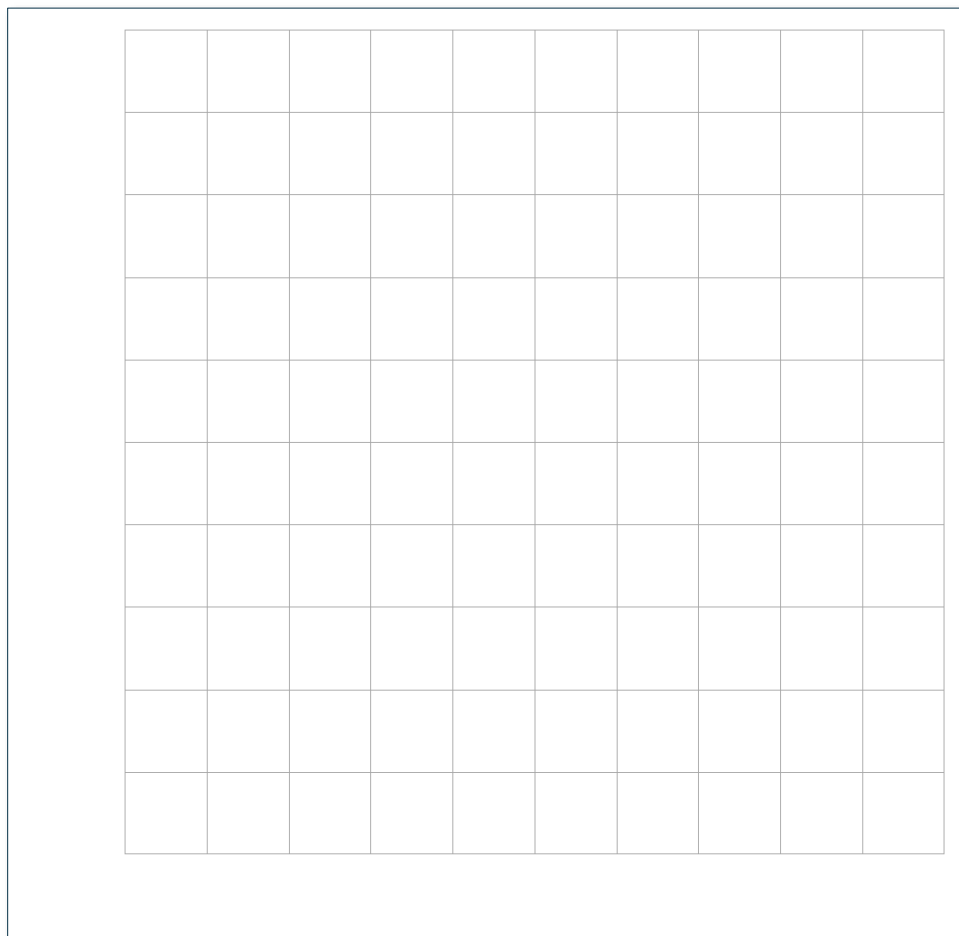
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12. Use the following information in table 2 to sketch the market demand for the following good. **[4 marks]**

Table 2: Individual consumer demand for good A.

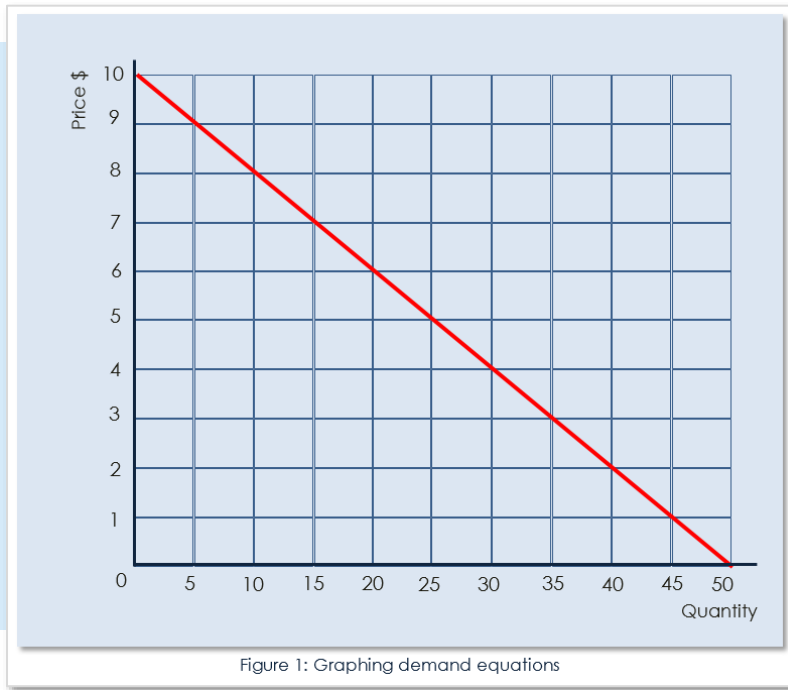
| Price | Consumer 'A' | Consumer 'B' | Consumer 'C' | Consumer 'D' | Consumer 'E' | Consumer 'F' | Consumer 'G' |
|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| \$0.50 | 90 | 100 | 70 | 200 | 90 | 50 | 140 |
| \$1.00 | 70 | 90 | 60 | 180 | 80 | 40 | 100 |
| \$1.50 | 50 | 80 | 50 | 160 | 70 | 30 | 80 |
| \$2.00 | 30 | 70 | 40 | 140 | 60 | 20 | 60 |
| \$2.50 | 10 | 60 | 30 | 120 | 50 | 10 | 50 |

2.1 Demand

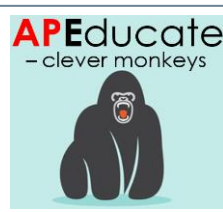


2.1 Demand

13. Construct a demand schedule using the information in the demand curve below. **[4 marks]**

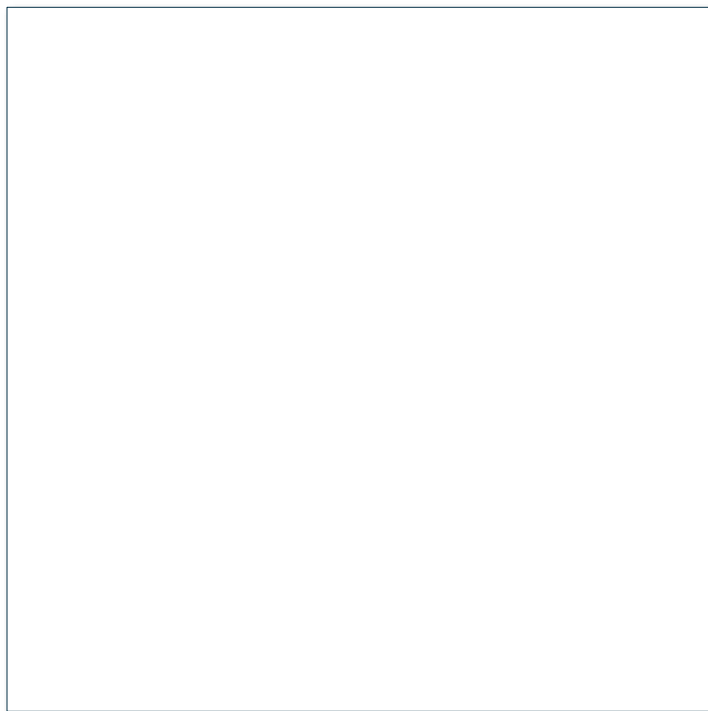


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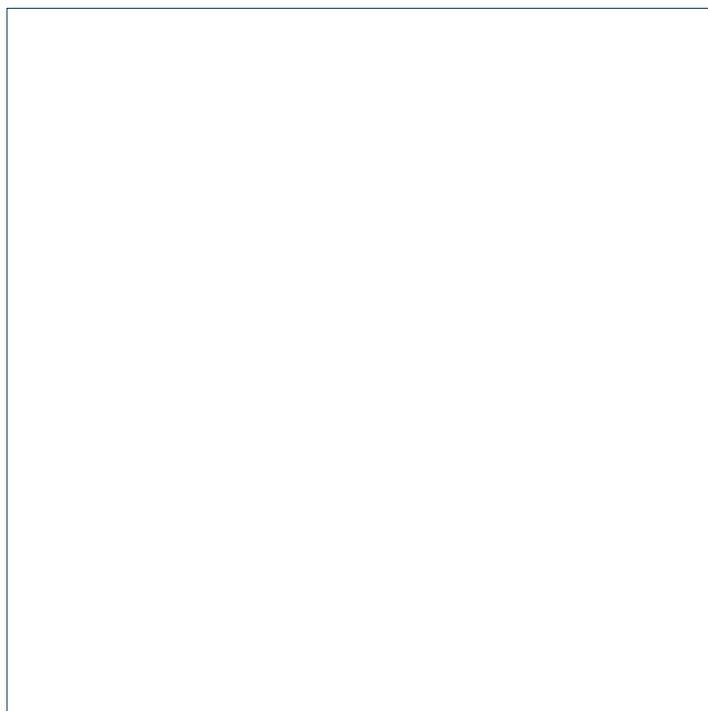


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14. Using diagrams, show the impact of the following on the demand curve for good A: **[12 marks]**
- Consumer incomes increase and good A is an inferior good

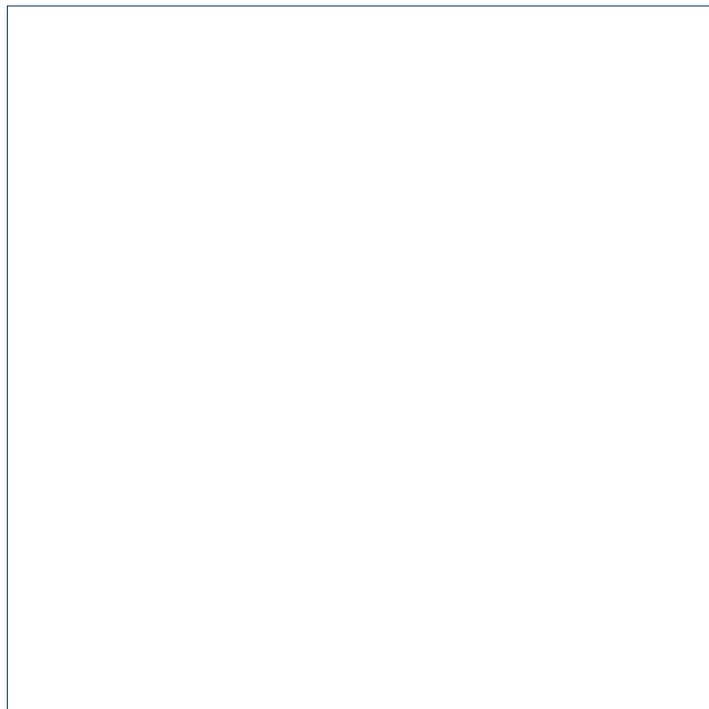


- The number of consumers in the market for good A decreases

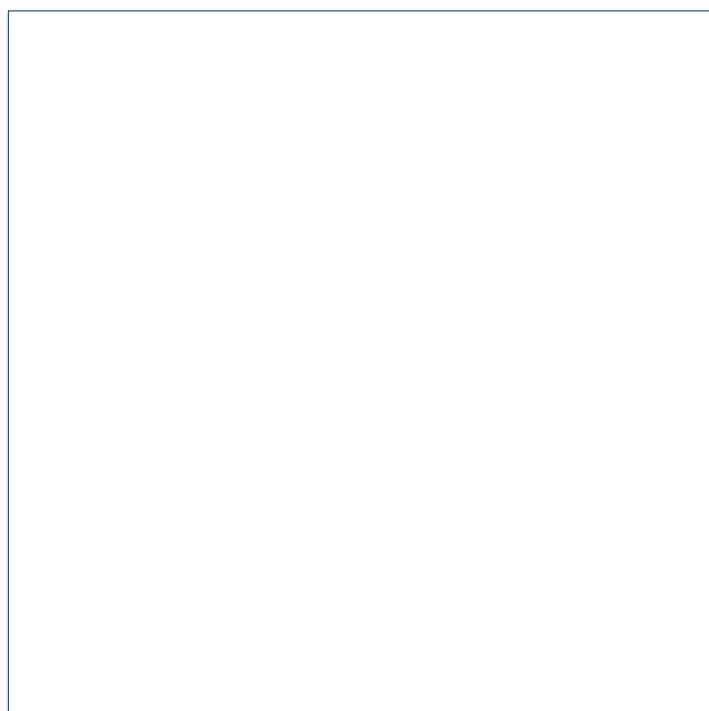


2.1 Demand

iii. Consumer incomes increase and good A is a normal good

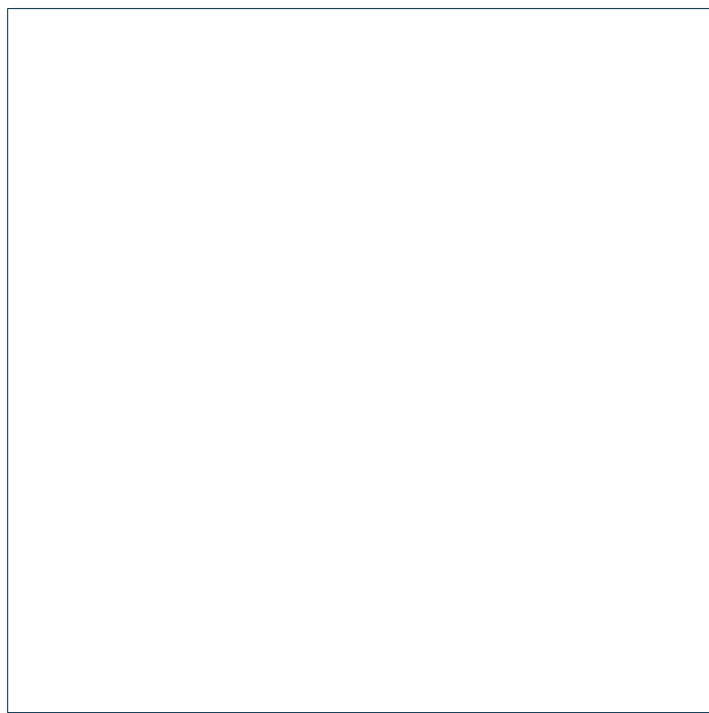


iv. The price of substitute good B decreases

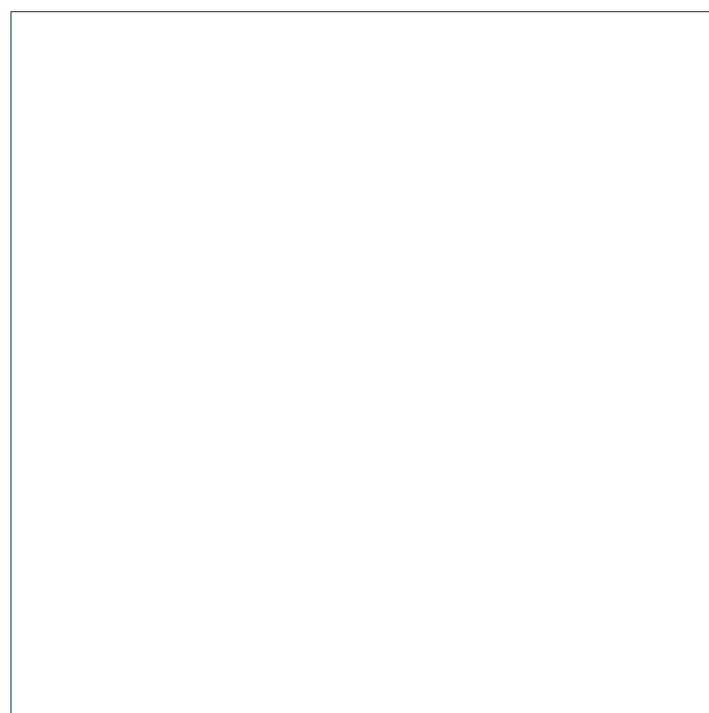


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v. The price of complement good C increases

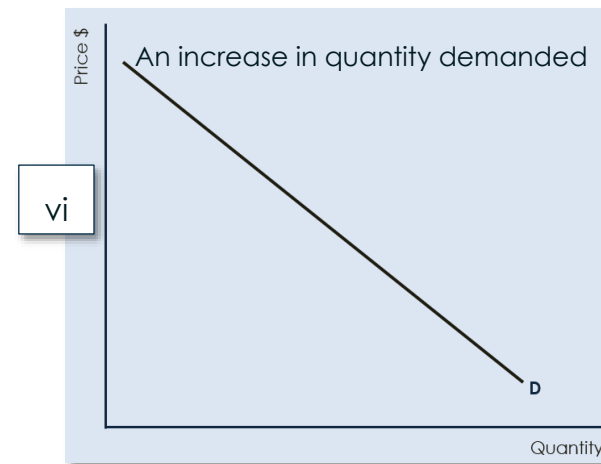
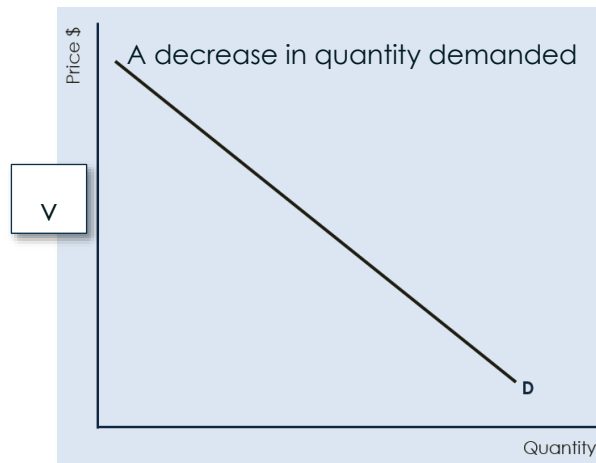
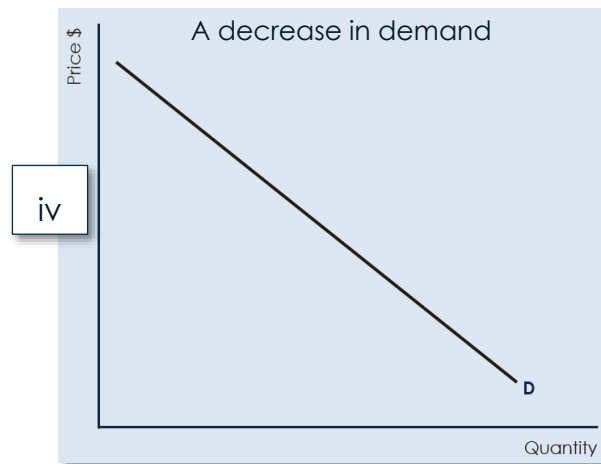
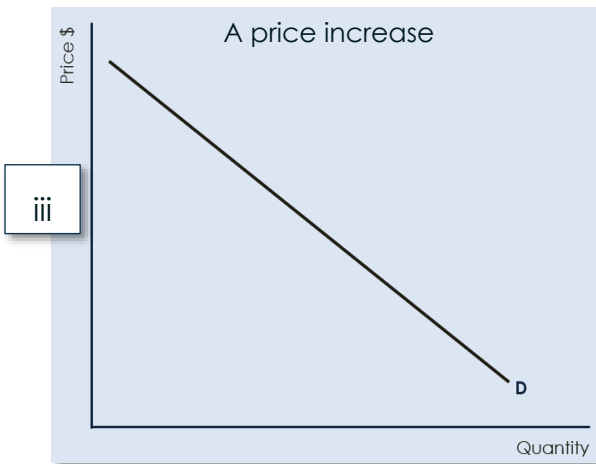
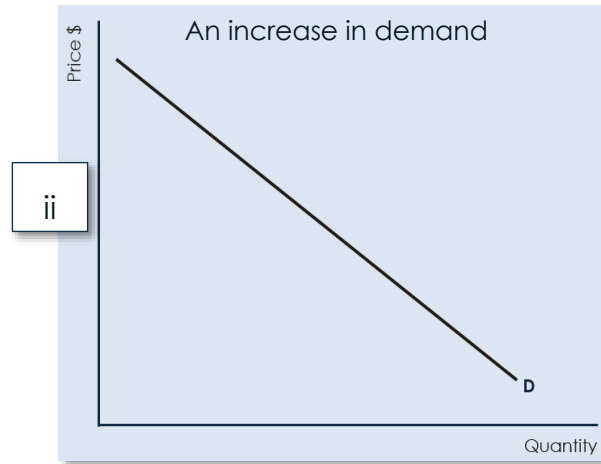
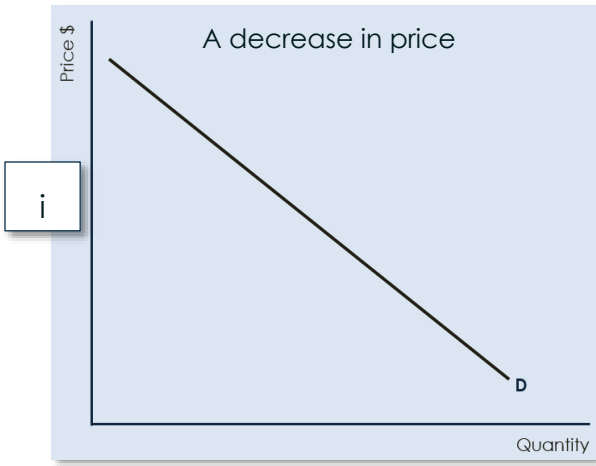


vi. Better product marketing means good A is becoming more preferred.



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15. Illustrate the change indicated by the title of each graph; label the changes fully. [12 marks]



2.1 Demand

3. EXTENSION QUESTIONS: DEMAND LINEAR EQUATIONS

1. In the demand function: $Q_d = a - bP$, explain what the following variables represent: **[4 marks]**

i. **Q_d**

ii. **P**

iii. **a**

iv. **$-b$**

2. Explain why the variable 'b' is a negative number?

[2 marks]

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3. Construct a demand schedule using the demand function: $Q_d = 60 - 5P$.

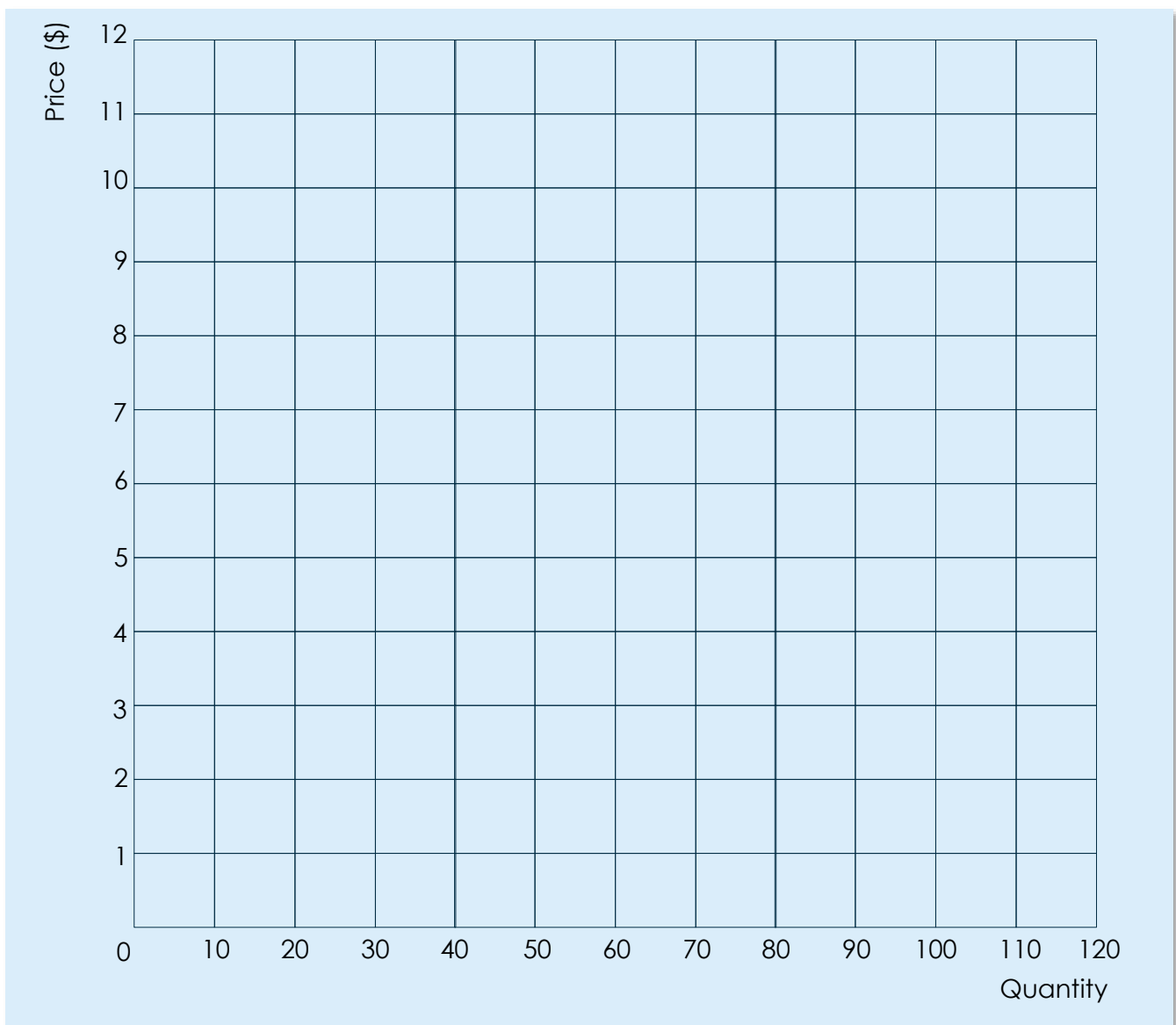
[2 marks]

| Price (\$) | Demand function: $Q_d = 60 - 5P$ | Quantity demanded |
|------------|----------------------------------|-------------------|
| 0 | | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |

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4. Consider the demand function: $Q_d = 70 - 7P$

i. Find the x-axis (Q_d) and y-axis (P) intercepts. Plot the graph



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- ii. Calculate the Q_d when price (P) = 2, 5 and 8

[4 marks]

| Price (\$) | Demand function: $Q_d = 70 - 7P$ | Quantity demanded |
|------------|----------------------------------|-------------------|
| 2 | | |
| 5 | | |
| 8 | | |

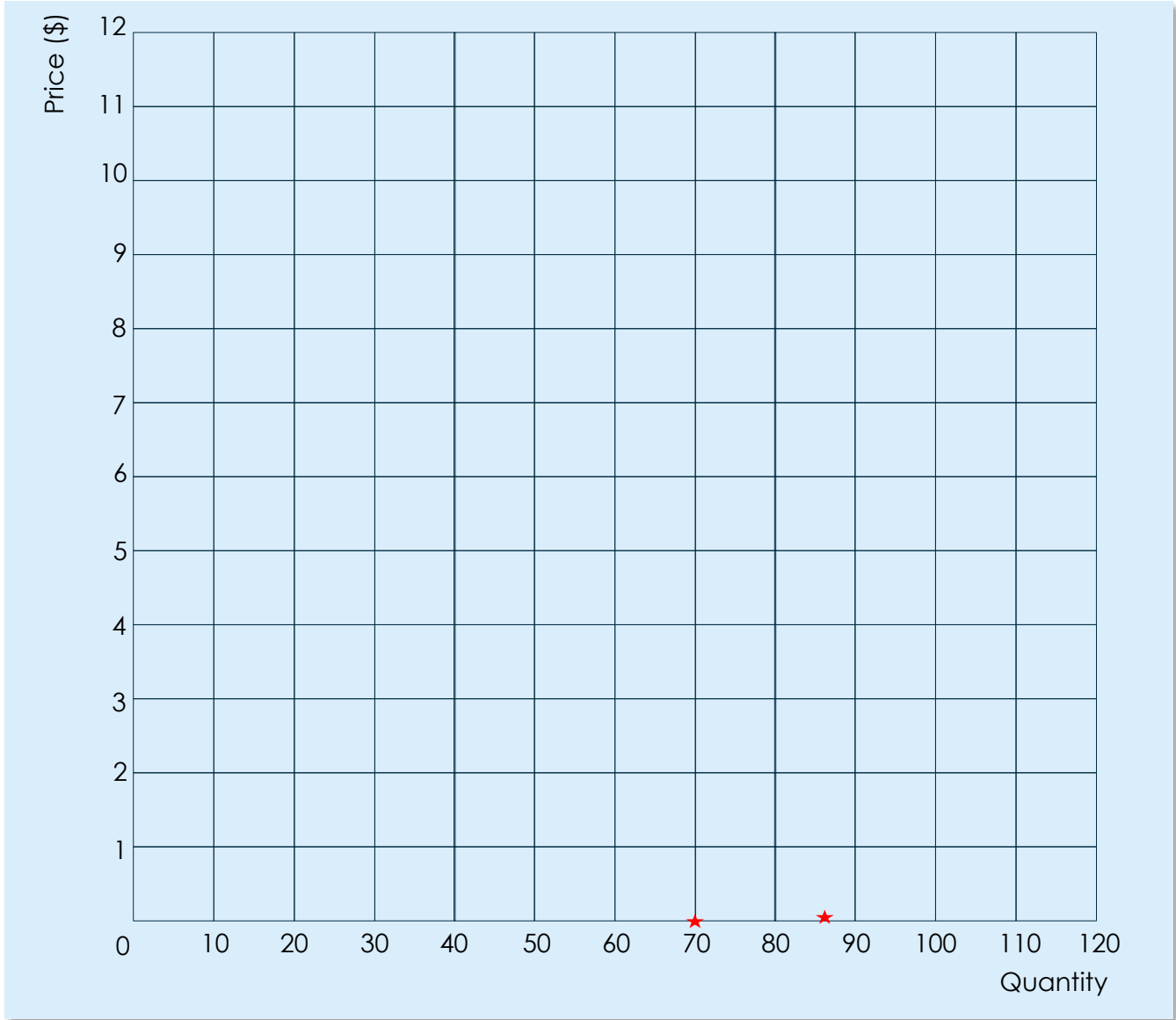
5. Consider the demand function: $Q_d = 70 - 7P$. A successful promotional campaign means that now an additional 15 units are being demanded at each price.

- i. State the new demand function

- ii. Calculate the Q_d (i.e., when $P = 0$) and P (i.e., when $Q_d = 0$) intercepts

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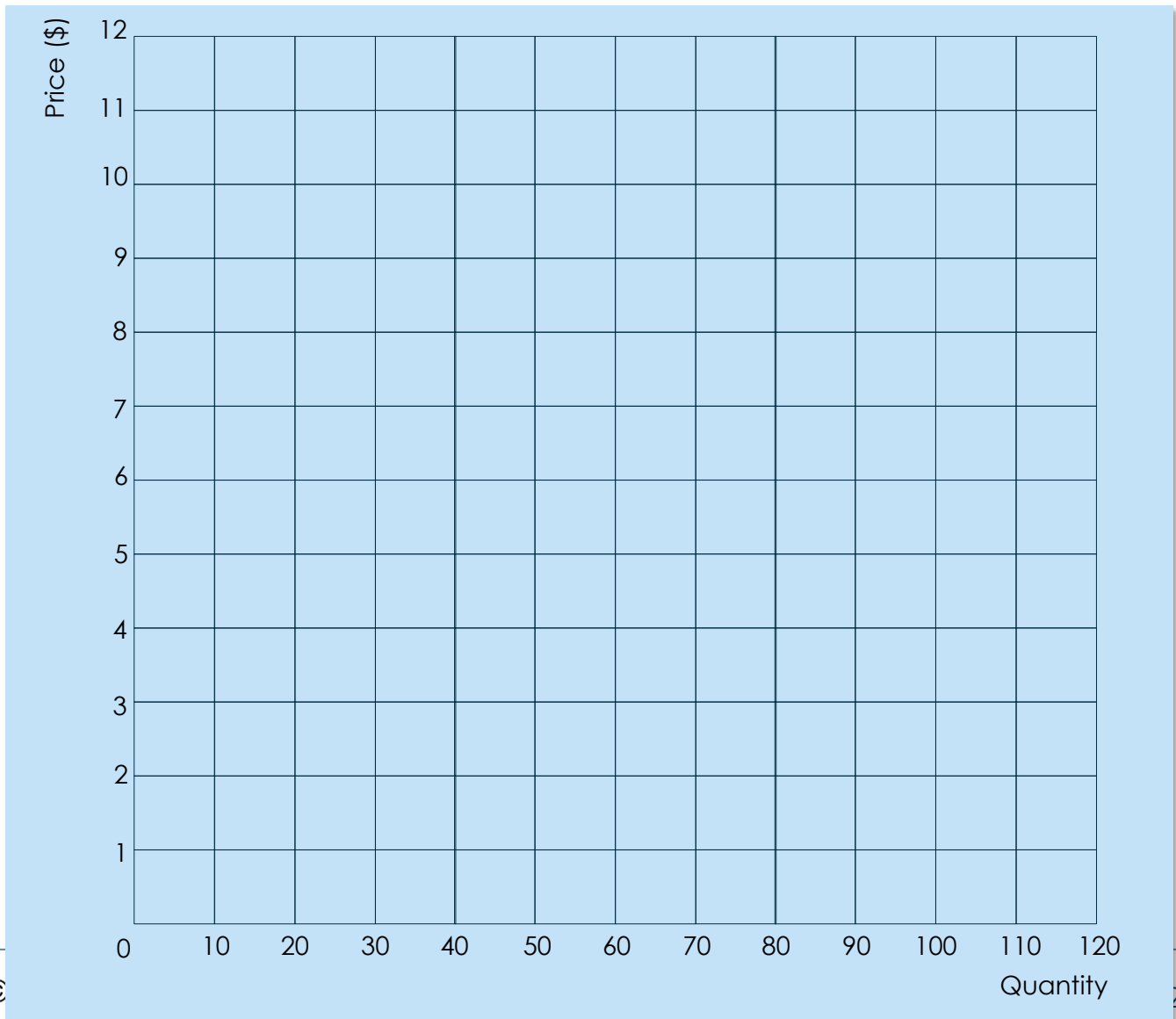
- iii. Sketch both the old and new demand curves, to accurately show the change in demand. **[6 marks]**



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6. Consider the demand function: $Q_d = 70 - 7P$. Shifting consumer preferences means that 20 less units are now being demanded at each price.
- i. State the new demand function

- ii. Calculate the Q_d and P intercepts and sketch the demand curve. **[4 marks]**



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