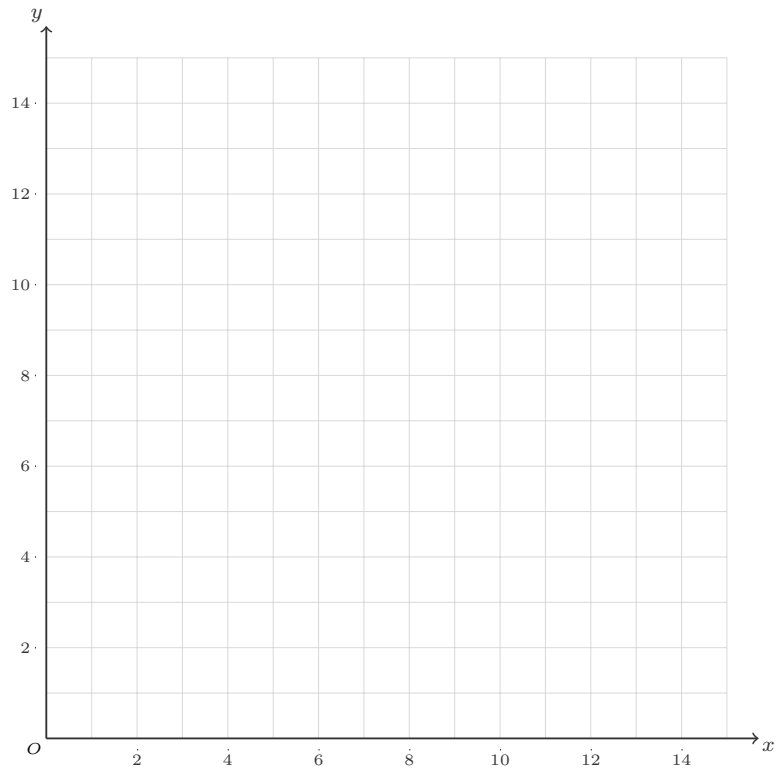
1 Firm A charges $3{,}000$ shillings plus 500 a kilometre. Firm B charges 800 a kilometre and nothing to start.

x is the number of kilometres and y is the cost in thousands of shillings. **Draw both graphs on the one grid and label them.**



(a) Firm A's graph (2)

(b) Firm B's graph (2)

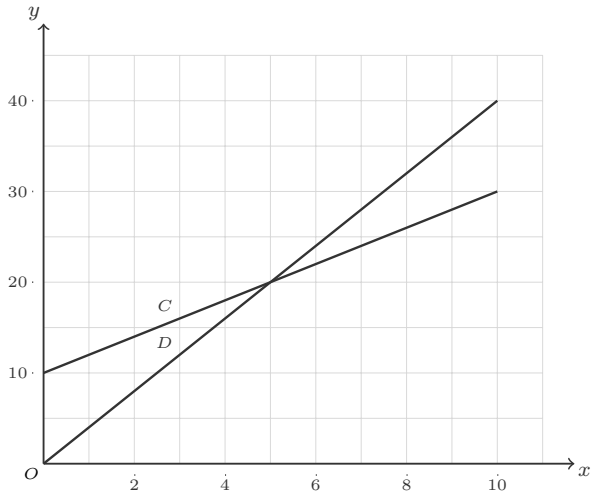
(c) Write down the crossing point (2)

(d) **Which firm should you use? Your answer must cover short journeys, long journeys, and the changeover.** (3)

(9 marks)

2 Two graphs are drawn on one grid.

x is the number of items and y is the cost in thousands of shillings.



(a) Write down the crossing point (2)

(b) Which is cheaper for 2 items? (1)

(c) Which is cheaper for 8 items? (1)

(d) **Explain how you can tell which is cheaper without working out any costs.** (2)

(6 marks)

3 Firm C charges $1{,}000$ plus 600 a kilometre. Firm D charges $2{,}000$ plus 600 a kilometre.

(a) Write down the cost of a 5 km journey with each firm (1)

(b) Write down the cost of a 10 km journey with each firm (1)

(c) **Will the two graphs ever cross? Explain.** (3)

(d) Which firm should you use? (1)

(6 marks)