



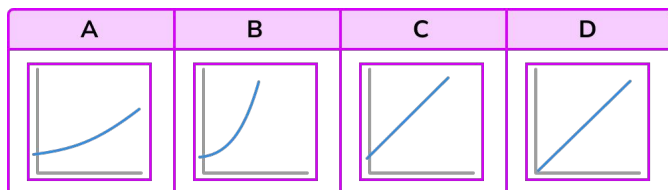
THIRD SPACE
LEARNING

GCSE Exam Questions

Direct Proportion | Ratio &
Proportion

GCSE Exam Questions: Direct Proportion

- 1) Here are four graphs.



State which graph represents direct proportionality.

(1 mark)

- 2) 500 sheets of paper weigh 2.4 kg.
Work out the weight of 60 sheets of paper.

----- kg
(2 marks)

- 3) m is directly proportional to p^2 .
 m is given by the formula: $m = 50p^2$
Work out the value of m when $p = 3$.

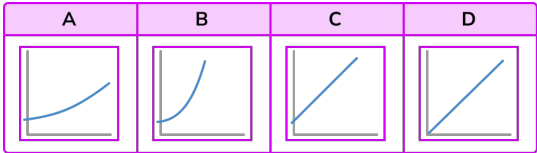
(2 marks)

GCSE Exam Questions: Direct Proportion

- 4) A recipe for lemon cheesecake needs 240 grams of soft cheese.
The lemon cheesecake will have 8 proportions.
Soft cheese is sold in 300 gram packets.
The packets cost £1.45 each.
Penny wants to make enough lemon cheesecake for 24 portions.
Calculate the cost of soft cheese for Penny to make 24 portions of cheesecake.

(4 marks)

GCSE Exam Questions: Direct Proportion Answers

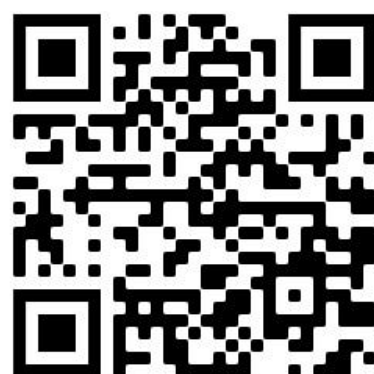
	Question	Answer	Marks
1)	<p>Here are four graphs.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">A</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">B</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">C</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">D</div> </div>  <p>State which graph represents direct proportionality.</p>	D	(1)
2)	<p>500 sheets of paper weigh 2.4 kg. Work out the weight of 60 sheets of paper.</p>	$2.4 \div 500 \times 60$ $= 0.288 \text{ kg (accept 288g)}$	(1) (1)
3)	<p>m is directly proportional to p^2. m is given by the formula</p> $m = 50p^2$ <p>Work out the value of m when $p = 3$.</p>	50×3^2 450	(1) (1)
4)	<p>A recipe for lemon cheesecake needs 240 grams of soft cheese.</p> <p>The lemon cheesecake will have 8 portions. Soft cheese is sold in 300 gram packets. The packets cost £1.45 each. Penny wants to make enough lemon cheesecake for 24 portions.</p> <p>Calculate the cost of soft cheese for Penny to make 24 portions of cheesecake.</p>	<p>The amount of soft cheese needed:</p> $240 \div 8 \times 24$ $= 720 \text{ grams}$ $"3" \times 1.45$ £4.35	(1) (1) (1) (1)

Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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