

May 7th

5-a-day

Numeracy

Write in minutes

$2\frac{1}{2}$ hours

150 mins

$$18 \times 22 = 396$$

$$3960 \div 18 = 220$$



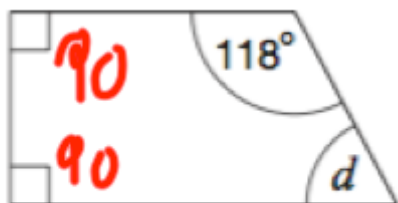
What number is shown by the arrow?

0.3

Draw an arrow on the scale to show 0.75

Work out $12 - (3 + 7)$

$$12 - 10 = 2$$



360

Find d

62°

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<p>If $3x - y = 12$</p> <p>What is the value of $6x - 2y$?</p> <p style="text-align: center;">24</p>		<p>What is the value of $y - 3x$?</p> <p style="text-align: center;">-12</p>
<p>Solve $\frac{x}{2} + 3 = 7$</p> <p style="margin-left: 150px;">$-3 \quad -3$</p> <p style="margin-left: 100px;">$\frac{x}{2} = 4$</p>		<p style="text-align: center;">$\times 2 \quad \times 2$</p> <p style="text-align: center;">$x = 8$</p>
<p>A mother's and daughter's ages are in the ratio <u>7:2</u></p> <p>If the mother is 35, how old is the daughter? <u> </u></p>		<p style="text-align: center;">$35 \div 7 = 5$</p> <p style="text-align: center;">$5 \times 2 = 10$</p>
<p style="text-align: center;">$3\frac{2}{3} + 2\frac{1}{2}$</p> <p>Two cities are 5cm apart on a map whose scale is 1:5,000,000. Find the actual distance (in km) between the two cities.</p> <p style="margin-left: 50px;">$5 \times 50\,000\,000$</p> <p style="margin-left: 50px;">$= 250\,000\,000 \text{ cm}$</p>		<p style="text-align: center;">$\frac{11}{3} + \frac{5}{2}$</p> <p style="text-align: center;">$\frac{22}{6} + \frac{15}{6} = \frac{37}{6} = 6\frac{1}{6}$</p> <p style="text-align: center;">$= 250000 \text{ m}$</p> <p style="text-align: center;">$= 250 \text{ km}$</p>

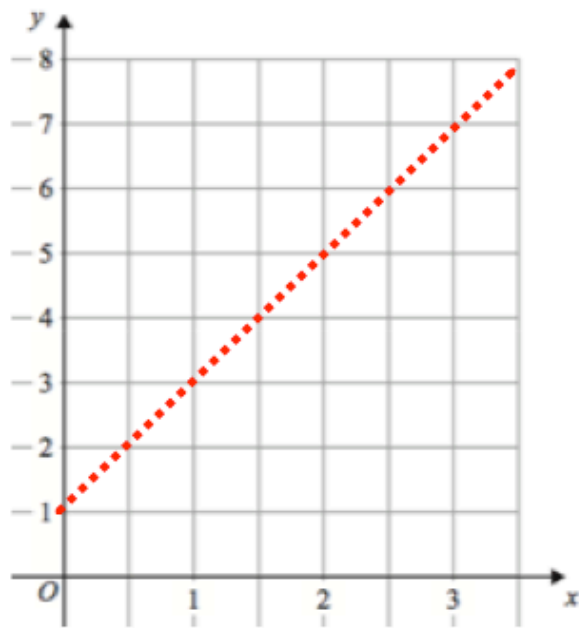
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Higher

Draw the graph $y = 2x + 1$

x	0	1	2
y	1	3	5



Write down the gradient of a line perpendicular to the one drawn.

$$-\frac{1}{2}$$

A tank of water is losing 10% of its water an hour.

What percentage is lost after 2 hours?

$$100 \times 0.9^2 = 81\%$$

$$100 - 81 = \underline{19\%}$$

In a tin there are:

- 4 chocolate biscuits
- 3 plain biscuits
- 5 Hobnobs

Work out the probability that two biscuits picked at random are the same.

$$CC \frac{4}{12} \times \frac{3}{11} = \frac{12}{132}$$

$$PP \frac{3}{12} \times \frac{2}{11} = \frac{6}{132}$$

$$hh \frac{5}{12} \times \frac{4}{11} = \frac{20}{132}$$

$$\frac{38}{132} \quad \checkmark$$

$$\frac{19}{66}$$

M is the midpoint of AB.

$$AB = \underline{b} - \underline{a}$$

Find vector OM in terms of a and b.

$$AM = \frac{1}{2}b - \frac{1}{2}a$$

$$OM = OA + AM = a + \frac{1}{2}b - \frac{1}{2}a$$

$$= \frac{1}{2}a + \frac{1}{2}b$$

