

Work out $3 - 5$

$$-2$$

Calculate

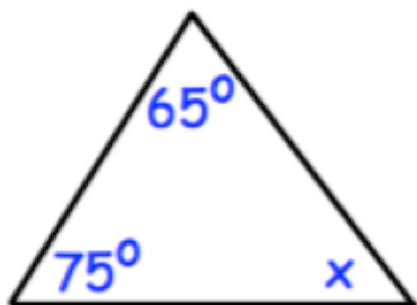
 $\frac{3}{5}$ of 35

$$21$$

Work out

 $3 + 2 \times 7$

$$3 + 14 = 17$$



$$x = 40^\circ$$

Write 0.6 as a fraction.

Give your answer in its simplest form

$$\frac{6}{10} = \frac{3}{5}$$

Write as a single power of 5

$$5^7 \div 5^4 = 5^3$$

Work out the actual answer

$$125$$

How far would you travel if you travelled for 5 hours at 25mph?

$$5 \times 25 = 125 \text{ miles}$$

How long does it take to travel 60 miles at 30mph?

$$\frac{60}{30} = 2 \text{ hours}$$

Use trial and improvement to solve $x^2 - x = 32$ to 1 decimal place

$$\underline{6.2}$$

x	$x^2 - x$	Comment
6	30	low
7	42	high
6.2	32.24	high
6.1	31.11	low
6.15	31.6725	low

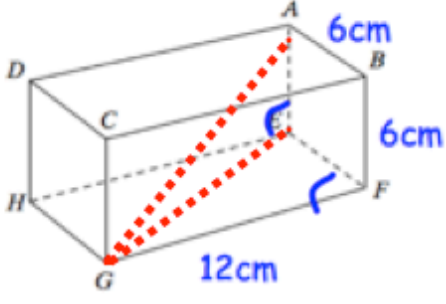
6.1 6.15 6.2

Solve $\frac{2x+1}{3} = 7$

$$2x+1 = 21$$

$$2x = 20$$

$$x = 10$$

February 18	5-a-day	Higher
Factorise $x^2 - 11x + 30$ $(x - 5)(x - 6)$	Factorise $x^2 - 2x - 63$ $(x - 9)(x + 7)$	
A bag of apples weighs 5kg, correct to the nearest kilogram. What is the greatest possible weight of four bags?	$4 \times 5.5 \text{ kg}$ $22 \text{ kg} \leftarrow \text{upper bound.}$	
A different bag contains 4 red apples and 6 green apples. Three apples are taken from the bag, one at a time, without replacement. What is the probability of three red apples?	$\frac{4}{10} \times \frac{3}{9} \times \frac{2}{8} =$ $\frac{1}{30}$	
	Work out the length of AG. $EG = \sqrt{6^2 + 12^2} = 13.41 \dots$ $AG = \sqrt{216} = 6\sqrt{6}$ or 14.697 cm	
Rationalise the denominator $\frac{5}{1 + \sqrt{2}} \times \frac{1 - \sqrt{2}}{1 - \sqrt{2}} =$	$\frac{5 - 5\sqrt{2}}{-1}$ $= 5\sqrt{2} - 5$	