



1 Solve the following equation...

$$5x - 9 = 2x + 12$$

7 How long did a train take to travel 192 miles at an average speed of 80 m.p.h?

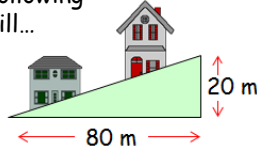


6 Write  $\frac{3}{4}$  as a decimal and a percentage.

5 The Byrne's set out on a journey of 123 miles. They travel 37.78 miles and have a break. They then travel a further 60.295 miles. How much further do they have to travel?

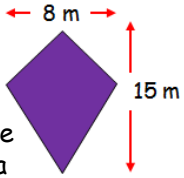


4 Calculate the gradient of the following hill...



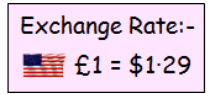
3 Simplify the following expression...  
 $7y^2 + 4y + y^2 - 5y$

2 Calculate the area of this kite...

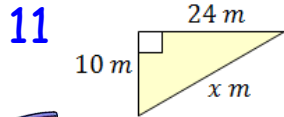


13 Calculate  $\frac{2}{3}$  of 111

12 Exchange Rate:-  
£1 = \$1.29  
Change \$451.50 into pounds



11 Calculate the length of the missing side...

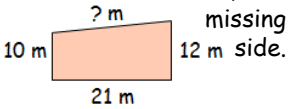


10 Calculate 80% of 35

9 Decrease 35 metres by 20%



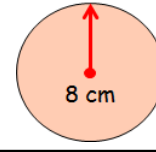
8 The perimeter of this shape is 66 m. Calculate the length of the missing side.



19 The mean age of four babies is 5 months. Three of the babies' ages are 2, 3 and 9 months. What is the age of the fourth baby?



18 Calculate the area of this circle...



17 A group of 6 hill climbers take enough food to last a 4 day trip. Another 2 climbers join the group, but they do not bring food. How many days will the food now last this larger group?

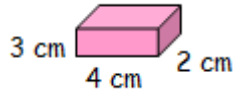


16 Factorise the following expression...  
 $3y + 24$

15 In a school there are 288 pupils and 12 teachers. What percentage of the school are teachers?

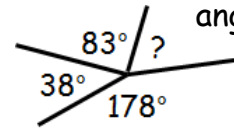


14 Calculate the volume of this cuboid...



25 Multiply out the following brackets and gather like terms...  
 $2(4x + 1) - 3(x - 2)$

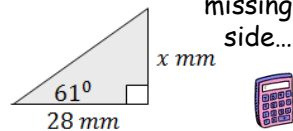
24 Calculate the missing angle...



23 3 scones cost £2.16. How much for 8 scones?



22 Calculate the length of the missing side...



21 Solve the following inequality...  
 $9x + 7 < 61$

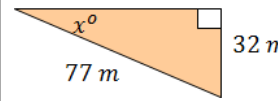
20 Bus 1 has a 2 in 30 chance of arriving late. Bus 2 has a 8 in 50 chance of being late. Which bus is more likely to not arrive on time?



31 This witches hat is in the shape of a cone. It has a diameter of 20 cm and a height of 30 cm. Using  $\pi = 3.14$  calculate it's volume.

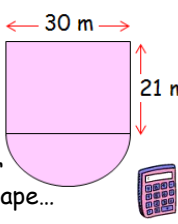


30 Calculate the size of the missing side...

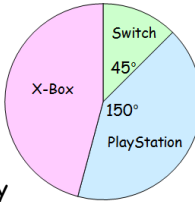


29 If  $a = -1$  and  $b = -2$  calculate :-  
 $2a^2 + 7b$

28 Calculate the perimeter of this shape...



27 408 children asked. How many preferred XBox?



Write a rule and complete the table...

tables (T)	1	2	3	15	?
chairs (C)	3	5	7	?	79

# RIGOUR

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## October National Maths Calendar

1



### #abitofmathseveryday

2	3	4	5	6	7
8	9	10	11	12	13
14	15	16	17	18	19
20	21	22	23	24	25
26	27	28	29	30	31