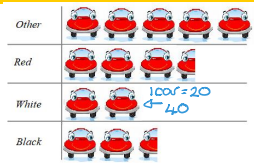


NOVEMBER ... A LITTLE BIT OF MATHS EVERY DAY

<p>1 What is the gradient and intercept of the line? $2y - 3x = 4$ gradient = $\frac{3}{2}$ intercept = 2</p>	<p>2 Which of these is a geometric sequence and which is an arithmetic sequence: geometric 1, 3, 9, 27 2, 5, 8, 11 arithmetic</p>	<p>3 Solve: $(x+1)(x+4) = (x-2)(x-3)$ $2x^2 + 5x + 4 = x^2 - 5x + 6$ $10x = 2$ $x = \frac{2}{10} = \frac{1}{5}$</p>	<p>4 Without a calculator work out $6511 \div 17$ 383</p>	<p>5 Calculate $4\frac{5}{6} - 2\frac{1}{5}$ $\frac{79}{30}$ $2\frac{19}{30}$</p>	<p>6 The pictogram shows the number of cars in a car park. The total number of cars is 260. How many cars were white? 40</p> 					
<p>8 Write an expression for the perimeter of a rectangle with width $6x + 8$ and length $8y$ $3x + 4$ and length $4y$ $6x + 8y + 8$</p>	<p>9 Give your answer in standard form $\frac{1.2 \times 10^7}{4 \times 10^4}$ 3×10^2</p>	<p>10 Calculate: $\frac{2}{7} \times \frac{7}{22} \frac{1}{11}$</p>	<p>11 The exterior angles for an octagon adds up to ...? 360°</p>	<p>12 Write 2.71×10^7 as an ordinary number 27,100,000</p>	<p>13 Expand and simplify $3a^2b(5b + 3a) + 4ab^2(5a - 3b)$ $15a^2b^2 + 9a^3b + 20a^2b^2 - 12ab^3$ $35a^2b^2 + 9a^3b - 12ab^3$</p>	<p>14 Work out $24 - 3 \times 5 = 9$ $8 \times 4 + 2 = 34$</p>				
<p>15 84 can be written as $2 \times 2 \times 3 \times 7$. Use this information to help you: a) write 168 as a product of its prime factors. $2^3 \times 3 \times 7$ b) write 672 using index notation $2^5 \times 3 \times 7$</p>	<p>16 By rounding, estimate the answer to the below: $\frac{7 \times 40}{20 \div 20} = \frac{280}{4} = 70$ 7.17×36.41 $82.71 \div 19.4$</p>	<p>17 A car cost £17,500 three years ago. The car depreciates at an average 7.5% per year. How much is the car worth now? £13,850.43</p>	<p>18 True or False? $a^8 + a^4 = a^2$ False, its a^6</p>	<p>19 5 pens and 3 pencils cost £1.50 6 pens and 5 pencils cost £2.15 How much does 1 pen cost and how much does 1 pencil cost? Pen = 15p Pencil = 25p</p>	<p>20 The nth term of a sequence is given by $4n + 2$ Explain why 21 is not a term in this sequence. $4n + 2 = 21$ $4n = 19$ $n = 19/4$ n would not be a whole number</p>	<p>21 A bank is offering 2.4% simple interest or 2.3% compound interest. Which is the better rate if you invested £500 over 2 years? 2.4% simple interest</p>	<p>22 Interior angles in a 9 sided polygon add up to ...? 3sides = 180 4sides = 360 5sides = 540 6sides = 720 8sides = 900 9sides = 1080</p>	<p>23 Write each of the below as percentages: $\frac{3}{20} = 15\%$ $\frac{14}{20} = 70\%$ $\frac{28}{40} = 70\%$</p>	<p>24 Ann, Bob and Cath share some money in the ratio 2:5:3 Cath gets £15 more than Ann ... how much did they share? £150</p>	<p>25 Rebecca uses the digits 5, 4, 7 and 2 to make 4-digit numbers. How many different 4-digit numbers can she make that are greater than 7000? 6</p>
<p>24 If it takes 3 people 8 hours to complete a task, how long would it take 4 people to complete the same task? 6 hours</p>	<p>26 Convert to a mixed number fraction $\frac{21}{5} = 4\frac{1}{5}$</p>	<p>27 REMEMBER: The best way to revise maths is to "do Maths"!</p>								