

OCTOBER... A LITTLE BIT OF MATHS EVERY DAY

<p>1</p> <p>Simplify, leave your answer in index form</p> $6^3 \times 6^3 = 6^6$ $(5^2)^3 = 5^6$	<p>2</p> <p>Solve:</p> $5(x + 1) = 3(2x - 4)$ $5x + 5 = 6x - 12$ $17 = x$ $x = 17$	<p>3</p> <p>What is the reciprocal of each number?</p> $5 = \frac{1}{5}$ $\frac{1}{3} = 3$	<p>4</p> <p>Convert to an improper fraction</p> $3\frac{4}{7} = \frac{25}{7}$	<p>5</p> <p>A box of cereal weighs 750g to the nearest 10g. What is the error interval?</p> $745 \leq \text{cereal} < 755$	<p>6</p> <p>In a survey of 24 students:</p> <ul style="list-style-type: none"> - three eighths prefer studying French 9 - one sixth prefer studying German and 4 - the rest prefer studying Spanish. 11 <p>How many students prefer studying Spanish? 11</p>
<p>8</p> <p>The cost of hiring a van can be calculated using the rule: Cost = £80 + 52p per mile. Rob hires a van and travels 140 miles. How much does this cost him?</p> $\text{£}152.80$	<p>9</p> <p>By rounding estimate the answer to the below:</p> $\frac{9.7 + 46}{0.32} \approx \frac{60}{0.3} = 200$	<p>10</p> <p>Which two have the same value?</p> $\frac{8+6}{-8+4} = \frac{-2}{-2} = 1$ $\frac{-8-4}{-6-2} = \frac{-12}{-8} = 1.5$	<p>11</p> <p>True or False?</p> $a^7 \times a^4 = a^{28}$ <p>False its a^{11}</p>	<p>12</p> <p>Find the midpoint of the line AB where: A = (2, 4) and B = (-1, 3)</p> $(0.5, 3.5)$	<p>14</p> <p>Work out</p> $16 - (4 \times \frac{12}{3}) + 6 = 10$ $12 + 3 \div 3 + 2 = 15$
<p>15</p> <p>Simplify</p> $a \times a \times a + b + b = a^3 + 2b$	<p>16</p> <p>Solve:</p> $9x - 7 = 4x - 12$ $5x = -5$ $x = -1$	<p>17</p> <p>What is the gradient and y-intercept of the line</p> $y = 2x - 3$ <p>gradient: 2 intercept: -3</p>	<p>18</p> <p>Write these in size order, smallest first?</p> $0.15, 0.25, 0.2, \frac{3}{20}, 0.13, \frac{1}{4}, 0.13, \frac{3}{20}, 0.2, \frac{1}{4}$	<p>19</p> <p>Find 3.75% of 80.</p> <p>3</p>	<p>20</p> <p>Elaine's grandchildren all live in Wales or England. Two sevenths of her grandchildren live in Wales. $\frac{2}{7}$ 15 of her grandchildren live in England. $\frac{5}{7}$ $\frac{1}{3} = 3$ How many grandchildren does Elaine have? $\frac{3}{7} = 21$</p> <p>21</p>
<p>22</p> <p>Which is greater?</p> <p>40% of 50 or 50% of 20</p> <p>20 40 20</p> <p>They are the same</p>	<p>23</p> <p>Make a the subject of :</p> $b = (a - 3)^2$ $\sqrt{b} = a - 3$ $a = \sqrt{b} + 3$	<p>24</p> <p>Calculate:</p> $\frac{2}{3} - \frac{1}{5} = \frac{22}{15}$ $1\frac{7}{15}$	<p>25</p> <p>How many "terms" in this expression?</p> $4x + 5b - 3c$ <p>3</p>	<p>26</p> <p>Expand:</p> $(2x + 4)(3x + 2)$ $6x^2 + 4xc + 12xc + 8$ $6x^2 + 16xc + 8$	<p>27</p> <p>Emma is E years old. Hannah is twice as old as Emma. The sum of their ages is 27.</p> <p>How old is Emma?</p> $3E = 27 \quad E = 9 \text{ years old}$
<p>29</p> <p>Laura scored 48 out of 250 on her recent test. Write this as a percentage.</p> <p>19.2%</p>	<p>30</p> <p>£1 = \$1.49</p> <p>Jan exchanged £300 to dollars. How much did she receive?</p> <p>\$447</p>	<p>31</p> <p>True or False?</p> <p>The HCF of 20 and 40 is 4</p> <p>False... its 10.</p>	<p>REMEMBER: The best way to revise maths is to "do Maths"!</p>		