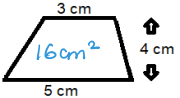




# DECEMBER... A LITTLE BIT OF MATHS EVERY DAY

# JustMaths

<p>1 Calculate</p> $2\frac{3}{7} - \frac{4}{7} = \frac{13}{7} = 1\frac{6}{7}$	<p>2 A square has a perimeter of 40cm what is its area?</p> <p>100cm<sup>2</sup></p>	<p>3 Solve</p> $5x - 3 = 21$ $5x = 24$ $x = 4.8$	<p>4 Without a calculator, work out</p> $486 \div 18$ <p>27</p>	<p>5 Work out</p> <p>150% of 300</p> <p>450</p>	<p>6 What is the 3rd square number multiplied by the 2nd cube number?</p> $9 \times 8 = 72$	<p>7 Write 136 as a product of its prime factors.</p> $2^3 \times 17$
<p>8 Share 1980 in the ratio 4:7</p> <p>720 : 1260</p>	<p>9 Calculate the area</p> 	<p>10 What is the percentage increase from £480 to £600?</p> <p>25%</p>	<p>11 Write as an improper fraction</p> $3\frac{6}{15} = \frac{51}{15}$	<p>12 Write 106 500 in standard form</p> $1.065 \times 10^5$	<p>13 Jasmine can decorate 37 cakes every 5 minutes. She works for 7 hours a day. Estimate the total number of cakes she can decorate in one day.</p> $60 \div 5 = 12$ $37 \times 12 \times 7 \approx 40 \times 10 \times 10 = 4000$	<p>14</p>
<p>15 A car will depreciate by 20% its original value every year.</p> <p>After how many years is it worth less than half the original value?</p> <p>4 years</p>	<p>16</p>	<p>17 Expand</p> $4x^2(2x - 1)$ $8x^3 - 4x^2$	<p>18 What information must be given to describe an enlargement?</p> <p>scale factor and centre of enlargement.</p>	<p>19 Factorise</p> $x^2 + 8x + 15$ $(x+3)(x+5)$	<p>20 Think of a number between 0 and 20. Add 32 to it. Multiply by 2. Now close your eyes ... its dark isn't it?? Have a break ... its Christmas!</p> 	<p>21</p>
<p>22 Helen &amp; Nicola share some money in the ratio 1:3. What fraction of the total does Helen have?</p> <p>1/4</p>	<p>23 Write</p> $0.0378 \times 10^3$ <p>in standard form</p> $3.78 \times 10$	<p>24 Calculate</p> $4 + (3 \times 5) - 1$ <p>18</p>	<p>25 MERRY CHRISTMAS!!</p>	<p>26 Round 0.269 to the 2 significant figures</p> <p>0.27</p>	<p>27 The perimeter of the triangle is 64 cm. The sides are in the ratio: 6 : 5 : 5</p> <p>Calculate the area of the triangle</p>  <p>height = <math>\sqrt{20^2 - 12^2} = 16</math></p> <p>Area = <math>\frac{1}{2} \times 24 \times 16 = 192\text{cm}^2</math></p>	<p>28</p>
<p>29 What number is halfway between</p> $\frac{1}{2} \text{ and } 1\frac{1}{4} = \frac{7}{8}$	<p>30 Mel and Chris share some money in the ratio 3:2. Mel has £35 more than Chris. How much do they share?</p> <p>£175</p>	<p>31 How many prime numbers are there between 0 and</p> <p>100?</p> <p>25</p>	<p>REMEMBER: The best way to revise maths is to "do Maths"!</p>			