
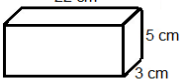


JULY ... A LITTLE BIT OF MATHS EVERY DAY

JustMaths

<p>1 Four of the interior angles of a seven-sided polygon are 111°, 150°, 160° and 170°.</p> <p>The other three interior angles of this polygon are equal. 309</p> <p>Calculate the size of each of the other three interior angles.</p> <p>103°</p>	<p>2 Expand</p> $3x^2y^2(2x^2 + 4xy)$ $6x^4y^2 + 12x^3y^3$	<p>3 List the first seven prime numbers.</p> <p>2, 3, 5, 7, 11, 13, 17</p>	<p>4 I am thinking of a number between 1 and 20. It is not an even number but it is a multiple of 3 and it is also a square number. $1, 4, 9, 16$</p> <p>What is the number?</p> <p>9</p>	<p>5 The perimeter of the rectangle is the same as the perimeter of the square. Work out the length of one side of the square.</p> <p>4cm</p> 
<p>6 5 15 7 16 15 2</p> <p>29</p> <p>From the above list, find:</p> <ul style="list-style-type: none"> - the median 15 - the mean 12.71 (2.d.p.) 	<p>7 Alan thinks of a decimal number.</p> <p>He multiplies the number by 5 and then subtracts 7.</p> <p>His answer is 5. $5 \div 7 = 12$</p> <p>What number did Alan think of?</p> <p>$12 \div 5 = 2.4$</p>	<p>8 Solve</p> $2p + 2 = 11$ $p = 4.5$	<p>9 Solve.</p> $7n < 5n + 11$ $2n < 11$ $n < 5.5$	<p>10 A square has an area of $4m^2$. What is the area in cm^2?</p> <p>$4m^2 = 200 \times 200 = 40,000 cm^2$</p> <p>11 Write down the first 4 terms of the sequence</p> $2n^3 + 3$ <p>5, 43, 138, 323</p>
<p>12 What is the volume?</p> <p>$330cm^3$</p> 	<p>13 Work out 12.5% of £1100 without a calculator</p> <p>£137.50</p>	<p>14 All items in a sale are reduced by 60%. How much will a £12 item cost in the sale?</p> <p>£4.80</p>	<p>15 Expand and simplify:</p> $(2x - 3)(x - 5)$ $2x^2 - 10x - 3x + 15$ $2x^2 - 13x + 15$	<p>16 A regular polygon has interior angles of 135°.</p> <p>How many sides does this polygon have?</p> <p>exterior $360 \div 45 = 8$ sides</p>
<p>17 Simplify</p> $m^{-3} + m^{-7} = 4$ m^4	<p>18 Factorise</p> $24p^2q - 8p^2$ $8p^2(3q - 1)$	<p>19 Work out $(4.1 \times 10^5) \times 3000$ without a calculator</p> <p>1.23×10^9</p>	<p>20 Calculate the largest share when £400 is shared in the ratio</p> <p>1 : 2 : 5</p> <p>50 : 100 : 250</p>	<p>21 Write 501 000 in standard form</p> <p>5.01×10^5</p>
<p>22 Without a calculator what is 57×48?</p> <p>2736</p>	<p>23 The height, H cm, of a table is measured as 68 cm correct to the nearest centimetre.</p> <p>Complete the following statement to show the range of possible values of H.</p> <p>$67.5 \leq H < 68.5$</p>	<p>24 REMEMBER: The best way to revise maths is to "do Maths"!</p>		