

<p><b>Write as a product of prime factors.</b></p> <p>(i) 72</p> <p>(ii) 225</p> <p>Write in the form <math>2^a \times 3^b \times 5^c \times 7^d</math></p> <p>840</p>	<p><b>Percentage of an amount.</b></p> <p>The price of a basket is £20. In a sale it was reduced by 15%, calculate the new price.</p>	<p><b>Exchange Rates.</b></p> <p>Bob goes on holiday to France. The exchange rate is £1 = 1.21 Euros. He changes £350 into Euros.</p> <p>a) How many Euros should he get? In France, Bob buys a digital camera for 115 Euros.</p> <p>b) Work out the cost of the camera in pounds.</p>	<p><b>HCF and LCM.</b></p> <p>Find the HCF of 108 and 24.</p> <p>Find the LCM of 150 and 120.</p>
<p><b>Ratio.</b></p> <p>The sides of a triangle are in the ratio 2 : 4 : 5.</p> <p>The middle sized side is 28 cm.</p> <p>(i) Find the length of the other two sides.</p> <p>(ii) Find the perimeter of the triangle.</p>	<p><b>*Use of a calculator.</b></p> <p>Find the value of the following to 1dp.</p> $\frac{15^2 - 12^2}{\sqrt{9.6 - 3.87}}$	<p><b>Index Laws.</b></p> <p>Write as a power of 5</p> <p>(i) <math>5^4 \times 5^2</math></p> <p>(ii) <math>5^9 \div 5^6</math></p> <p><math>2^x \times 2^y = 2^{10}</math> and <math>2^x \div 2^y = 2^4</math></p> <p>Work out the value of x and the value of y.</p>	<p><b>Calcs with mixed numbers.</b></p> <p>Work out, giving your answers as mixed numbers.</p> $1\frac{2}{3} \times 2\frac{3}{10}$ $4\frac{2}{3} \div 1\frac{2}{5}$
<p><b>Proportion.</b></p> <p>Here are the ingredients needed to make 16 gingerbread men.</p> <p><u>Ingredients</u> - to make 16 gingerbread men</p> <p>160g flour      40 g ginger</p> <p>110g butter    30g sugar</p> <p>Hamish wants to make 24 gingerbread men. Work out how much of each of the ingredients he needs.</p>	<p><b>Estimation.</b></p> <p>Estimate the value of ...</p> $\frac{9.55 \times 79.9}{11.8 \times 13.03}$	<p><b>Reverse Percentages.</b></p> <p>A holiday is advertised at a price of £403. This represents a saving of 35% on the brochure price. Work out the brochure price of the holiday.</p>	<p><b>*Compound interest.</b></p> <p>A company bought a van that had a value of £12 000</p> <p>Each year the value of the van depreciates by 25%.</p> <p>Work out the value of the van at the end of 3 years.</p>

\*Calculator allowed

courtesy of Dave Russell