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| **Write as a product of prime factors.**   1. 72 2. 225   Write in the form 2ax3bx5cx7d  840 | **Percentage of an amount.**  The price of a basket is £20. In a sale it was reduced by 15%, calculate the new price. | **Exchange Rates.**  Bob goes on holiday to France.  The exchange rate is £1 = 1.21 Euros.  He changes £350 into Euros.  a) How many Euros should he get?  In France, Bob buys a digital camera for 115 Euros.  b) Work out the cost of the camera in pounds. | **HCF and LCM.**  Find the HCF of 108 and 24.  Find the LCM of 150 and 120. |
| **Ratio.**  The sides of a triangle are in the ratio 2 : 4 : 5.  The middle sized side is 28 cm.   1. Find the length of the other two sides. 2. Find the perimeter of the triangle. | **\*Use of a calculator.**  Find the value of the following to 1dp. | **Index Laws.**  Write as a power of 5   1. 54 x 52 2. 59 ÷ 56   2x *x* 2y = 210 and 2x *÷* 2y = 24  Work out the value of x and the value of y. | **Calcs with mixed numbers.**  Work out, giving your answers as mixed numbers. |
| **Proportion.**  Here are the ingredients needed to make 16 gingerbread men.  Ingredients - to make 16 gingerbread men  160g flour 40 g ginger  110g butter 30g sugar  Hamish wants to make 24 gingerbread men. Work out how much of each of the ingredients he needs. | **Estimation.**  Estimate the value of ... | **Reverse Percentages.**  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. | **\*Compound interest.**  A company bought a van that had a value of £12 000  Each year the value of the van depreciates by 25%.  Work out the value of the van at the end of 3 years. |

\*Calculator allowed