

## Questions

## Maths Paper 3 - Foundation

Leo and Margot share £385 in the ratio 3:2. Work out how much Leo receives

Solve

$$\begin{aligned} 3x + 2y &= 13 \\ 4x - 2y &= 8 \end{aligned}$$

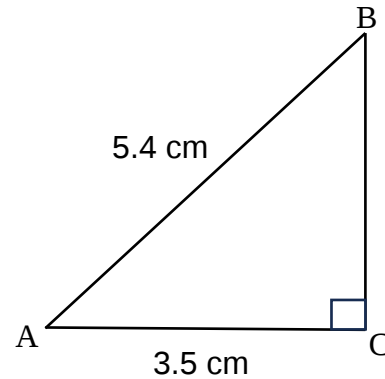
Solve

$$\frac{3x + 2}{4} = 10$$

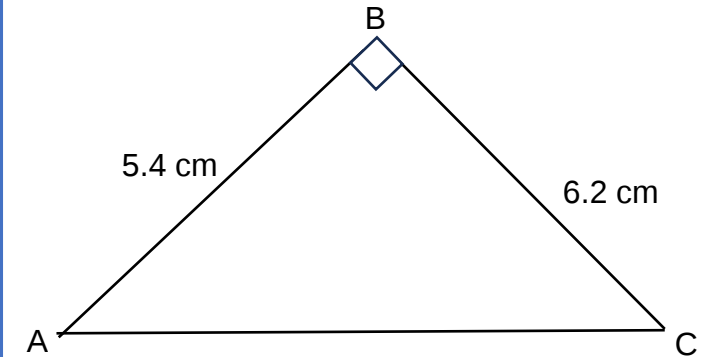
Complete the table

| Fraction      | Decimal | Percentage |
|---------------|---------|------------|
| $\frac{3}{4}$ |         |            |
|               | 0.03    |            |
|               |         | 80%        |

Work out the length of BC



Work out the size of angle BAC

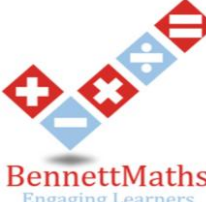
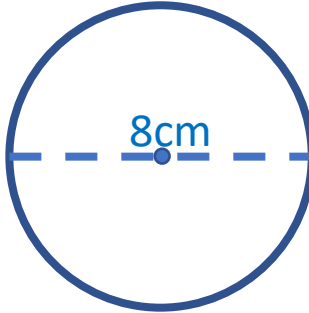
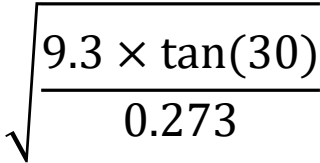


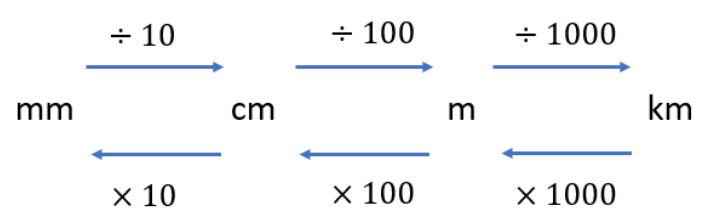
Express 17 as a fraction of 68

Express 60 as a product of prime factors

Make  $x$  the subject

$$3x + y = 15$$

| <div><p><b><u>Questions</u></b></p></div> | <p><b><u>Maths Paper 3 - Foundation</u></b></p>                                                                                                                                                                                                                                                                                      |                                                                                                                                        |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------|--|--|----------------|---|--|--|----------------|---|--|--|----------------|---|--|--|-------------------------------------------------------------------------------------------------------------------------|
| <p>Write down the probability of rolling a 4 on a fair 6-sided dice</p>                                                  | <p>(a) Convert 15cm into mm</p> <p>(b) Convert 45mm into cm</p> <p>(c) Convert 0.3kg into grams</p> <p>(d) Convert 6000<i>ml</i> into litres</p>                                                                                                                                                                                     | <p>There are 120 counters in a bag. The probability of selecting a red counter is 0.4.</p> <p>Work out the number of red counters.</p> |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
| <p>Simplify</p> <p>(a) <math>3a + 4a - a</math></p> <p>(b) <math>3x^2 + 4x^2</math></p>                                  | <p>Estimate the mean</p> <table><tr><th>Time (t)</th><th>Frequency</th><th></th><th></th></tr><tr><td><math>0 \leq t &lt; 1</math></td><td>5</td><td></td><td></td></tr><tr><td><math>1 \leq t &lt; 2</math></td><td>8</td><td></td><td></td></tr><tr><td><math>2 \leq t &lt; 3</math></td><td>1</td><td></td><td></td></tr></table> | Time (t)                                                                                                                               | Frequency |  |  | $0 \leq t < 1$ | 5 |  |  | $1 \leq t < 2$ | 8 |  |  | $2 \leq t < 3$ | 1 |  |  | <p>Find the area of</p> <div></div> |
| Time (t)                                                                                                                 | Frequency                                                                                                                                                                                                                                                                                                                            |                                                                                                                                        |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
| $0 \leq t < 1$                                                                                                           | 5                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                        |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
| $1 \leq t < 2$                                                                                                           | 8                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                        |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
| $2 \leq t < 3$                                                                                                           | 1                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                        |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |
| <p>Simplify <math>(3x^2)^2</math></p>                                                                                    | <p>Work out:</p> <div></div>                                                                                                                                                                                                                    | <p>Make <math>x</math> the subject of:</p> $r = x - 5$                                                                                 |           |  |  |                |   |  |  |                |   |  |  |                |   |  |  |                                                                                                                         |

| <div data-bbox="25 14 229 214">  <p data-bbox="25 171 229 214">BennettMaths<br/>Engaging Learners</p> </div> <div data-bbox="479 21 756 149"> <p>Examples/<br/>Key words</p> </div>                                                                                                                                       | <p>Maths Paper 3 - Foundation</p>                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Convert 3200 into standard form<br/> <math>3200 = 3.2 \times 10^3</math></p> <p>Work out <math>4.2 \times 10^4 + 8 \times 10^3</math>.<br/>           Give your answer in standard form</p> <p><math>42,000 + 8000 = 50,000</math><br/> <math>50,000 = 5 \times 10^4</math></p>                                                                                                                       | <p>Ordering FDP.<br/>           Convert all values to decimals</p> <p>Percentage to decimal = <math>\div 100</math></p> <p>Fraction to decimal = top <math>\div</math> bottom</p>                                                                                                                                                                                    | <p>Estimate = make the question easier by rounding</p> <p>Evaluate = work out the answer</p> <p>Express = Write in the different way</p> <p>Simplify = Change the appearance</p>                                                                                                                                                                                                    |
| <p>Volume of a cube = base x height x depth</p> <p>Volume of a cylinder = <math>\pi \times r^2 \times depth</math><br/>           Remember to keep your answer in terms of <math>\pi</math>, unless asked to estimate.<br/> <math>\pi \approx 3</math></p>                                                                                                                                               | <p>The volume of a shape is <math>20\text{cm}^3</math>.<br/>           The mass of the shape is <math>120\text{g}</math>.<br/>           Find the density.<br/>           Density = <math>\text{g}:\text{cm}^3</math></p> <p style="text-align: center;"> <math>120:20</math><br/> <math>6:1</math><br/>           Density = <math>6\text{g}/\text{cm}^3</math> </p> | <p>Angles in regular polygons:<br/>           Sum of the interior angles = <math>(n - 2) \times 180</math><br/>           To find an interior angle = <math>\frac{\text{total}}{n}</math> n= number of angles/sides.</p> <p>Sum of the exterior angles = <math>360^\circ</math><br/>           To find an exterior angle = <math>\frac{360}{n}</math> n= number of angles/sides</p> |
| <div data-bbox="50 1170 764 1385">  <p>Diagram showing unit conversions: mm to cm (<math>\div 10</math>), cm to m (<math>\div 100</math>), m to km (<math>\div 1000</math>). Reverse conversions: mm to cm (<math>\times 10</math>), cm to m (<math>\times 100</math>), m to km (<math>\times 1000</math>).</p> </div> | <p>Area of a circle = <math>\pi \times r^2</math></p> <p>Circumference = <math>\pi \times d</math></p>                                                                                                                                                                                                                                                               | <p>Mean = add together the values and divide by how many there are</p> <p>Median = list in order and find the middle value</p> <p>Mode = The number that appears the most</p>                                                                                                                                                                                                       |