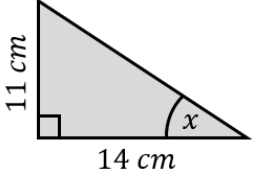
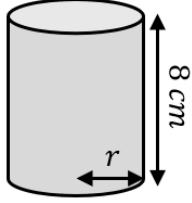


Crack the Code

Calculating with Bounds

| | | | |
|----------|--|----------|---|
| A | <p>The length and width of a rectangle are measured to the nearest metre as 6 m and 5 m. Find the lower bound of the area of the rectangle.</p> <p style="text-align: center;">24.75 m^2</p> | B | <p>A coin is weighed as 30 g to the nearest 5 g. Find the upper bound of the weight of 10 coins.</p> <p style="text-align: center;">325 g</p> |
| C | <p>The three sides of a triangle are 5 cm, 8 cm and 11 cm, all measured to the nearest cm. Find the upper bound of the perimeter of the triangle.</p> <p style="text-align: center;">25.5 cm</p> | D | <p>A dog weighs 26 kg to the nearest kg. Its puppy weighs 6.5 kg to the nearest 0.5 kg. Find the lower bound of the difference between their weights.</p> <p style="text-align: center;">18.75 kg</p> |
| E | <p>A car travels 82 km correct to the nearest km, in 1.5 hours correct to the nearest 0.1 hour. Find the lower bound of the speed in km/h.</p> <p style="text-align: center;">52.580645 km/h</p> | F | <p>The area of a square is measured as 60 cm^2, correct to 1 significant figure. Find the upper bound of the length of the side of the square.</p> <p style="text-align: center;">8.062258 cm</p> |
| G | <p>The formula $A = \frac{1}{2}ab \sin C$ is used to find the area of a triangle. $a = 12\text{ cm}$, $b = 9.0\text{ cm}$ and angle C is 72°, all correct to 2 significant figures. Find the upper bound of the area A.</p> <p style="text-align: center;">56.626944 cm^2</p> | H | <p>The density of a wooden block is measured as 1.8 g/cm^3 to the nearest 0.1 g/cm^3 and its volume as 40 cm^3 to the nearest 5 cm^3. Find the lower bound of the mass of the wooden block in g.</p> <p style="text-align: center;">65.625 g</p> |
| I | <p>The lengths of the right-angled triangle shown are measured correct to 2 significant figures. Find the lower bound of the size of angle x.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">35.909723°</p> | J | <p>The cylinder shown has a volume of 400 cm^3, correct to the nearest 10 cm^3. Its height is 8 cm correct to 1 significant figure. Find the upper bound of the radius of the cylinder.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">4.145930 cm</p> |

To get the three-digit code, add all your answers together and round to the nearest integer. 617