

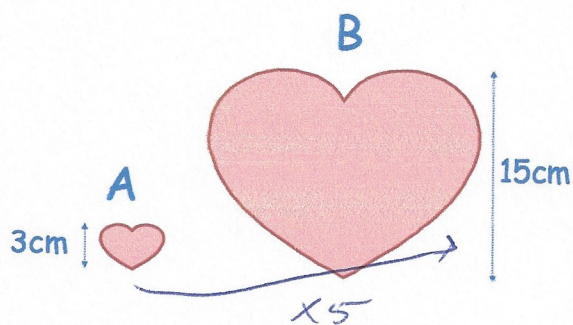


9th March		 Corbettm@ths
<p>W varies directly to \sqrt{C}. If $W = 60$ when $C = 36$, find:</p> <p>W when $C = 64$</p> <p style="margin-left: 100px;">$w \propto \sqrt{c}$ $w = k\sqrt{c}$ $60 = k \times \sqrt{36}$ $60 = k \times 6 \quad k = 10$</p>	<p>$w = 10\sqrt{c}$</p> <p>$w = 10 \times \sqrt{64}$ $= 80$</p>	
<p>C when $W = 160$</p> <p style="margin-left: 100px;">$160 = 10\sqrt{c}$ $16 = \sqrt{c}$ $c = 256$</p>		
<p></p> <p>This can has a mass of 350g to the nearest 10g.</p>	<p>What is the minimum mass of 10 of these cans?</p> <p style="margin-left: 100px;">$345g \times 10 =$ $3.45kg$</p>	
<p style="text-align: center;">B</p>  <p style="margin-left: 100px;">A</p> <p>3cm</p> <p>15cm</p> <p style="margin-left: 100px;">$\times 5$</p>	<p>The two hearts are similar. The area of shape B is 150cm^2 Work out the area of shape A.</p> <p style="margin-left: 100px;">$150 \div 5^2 = 6\text{cm}^2$</p>	
<p>Write 300 as a product of primes in index form.</p> <p style="margin-left: 100px;">300 $\begin{array}{l} \uparrow \\ (2) \ 150 \\ \uparrow \\ (3) \ 50 \\ \uparrow \\ (5) \ 10 \\ \uparrow \\ (2) \ (5) \end{array}$ $2 \times 2 \times 3 \times 5 \times 5$ $2^2 \times 3 \times 5^2$</p>	<p>What is the smallest number that you can multiply 300 by to make a cube number.</p> <p style="margin-left: 100px;">$300 = 2^2 \times 3 \times 5^2$ $? = 2^3 \times 3^3 \times 5^3$ $2 \times 3 \times 3 \times 5 = 90$</p>	