

27th September



Corbettmaths

Write 75 as a product of primes.

$$75$$

$$\begin{array}{l} \textcircled{3} \uparrow \\ \textcircled{5} \uparrow \end{array} 25 \quad 3 \times 5 \times 5$$

$$\textcircled{5} \uparrow \textcircled{5} \quad 3 \times 5^2$$

$$220$$

$$\begin{array}{l} \textcircled{2} \uparrow \\ \textcircled{2} \uparrow \end{array} 110 \quad 2 \times 2 \times 5 \times 11$$

$$\begin{array}{l} \textcircled{2} \uparrow \\ \textcircled{5} \uparrow \end{array} 55 \quad 2^2 \times 5 \times 11$$

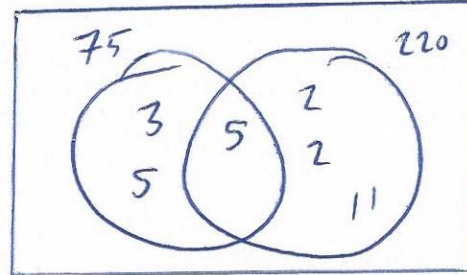
$$\textcircled{5} \uparrow \textcircled{11} \uparrow$$

Work out the LCM of 75 and 220.

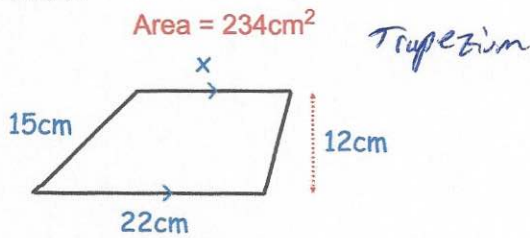
$$3300$$

Work out the HCF of 75 and 220.

$$5$$



Find x



$$A = \frac{1}{2}(a+b)d$$

$$\frac{1}{2}(x+22) \times 12 = 234$$

$$6(x+22) = 234$$

$$6x + 132 = 234$$

$$6x = 102 \quad x = 17$$

An empty bucket weighs 800g. The weight of the bucket increases to 2.1kg when filled with water.

$$\frac{1300}{800} \times 100 = 162.5$$

$2100 - 800 = 1300$

Calculate the percentage increase in the weight of the bucket. Give your answer to two significant figures.

$$160\%$$

Solve

$$\frac{11 - w}{5} = 3 + w$$

$$11 - w = 15 + 5w$$

$$11 = 15 + 6w$$

$$-4 = 6w$$

$$w = -\frac{2}{3}$$