

g) $x^2 - 36 = 0$
 $x^2 - 6^2 = 0$
 36 can be written as 6^2

Now factorise $x^2 - 6^2 = 0$

$$(x-6)(x+6) = 0$$

So, either $x-6 = 0$ or $x+6 = 0$
 $x = 6$ or $x = -6$

$$x = -6 \text{ or } 6$$

Q5 a) $V = \frac{1}{3} \pi r^2 h$

and height is 7cm
 Radius is 5cm. You substitute this in formula
 $r = \text{radius}$ $h = \text{height}$ $\pi = 3.14$

$$V = \frac{1}{3} \pi (5)^2 \times 7$$

$$V = \frac{1}{3} \times 3.14 \times 5^2 \times 7 \quad (\text{use your calculator})$$

$$V = 183.2 \text{ cm}^3$$

b) $V = \frac{1}{3} \pi r^2 h$

We want r by itself on one side of the equal sign (r is the subject)

$$V = \frac{1}{3} \pi r^2 h \quad (\text{move } 3 \text{ to the other side of the equal sign})$$

$$3V = \pi r^2 h$$

$$3V = \pi \times r^2 \times h$$

$$\frac{3V}{\pi h} = r^2$$

(Now move π and h to the other side of the equal sign. They change sign and become divided)

$$\sqrt{\frac{3V}{\pi h}} = r \rightarrow (\text{This is your answer})$$

Remove the square root from r^2 and put a square root on every thing on the other side