M4 -33 days to go!

9 Solve $\frac{x+3}{2} = \frac{5x}{6}$

$\frac{3(x+3)}{6} = \frac{5x}{6}$

$\frac{3x+9}{6} = \frac{5x}{6}$

$3x + 9 = 5x$

$-3x$ $-3x$

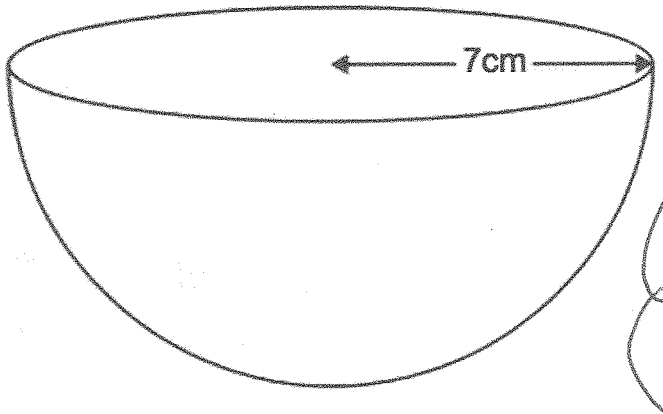
$9 = 2x$

$\div 2$ $\div 2$

$4.5 = x$

check it

10. Shown below is a hemisphere.



Sphere Formula Page

$V = \frac{4}{3}\pi r^3$

$SA = 4\pi r^2$

Calculate the surface area of the hemisphere.

Hemi-sphere

Curved S.A. $= 4\pi r^2$ then $\div$ by 2

$= 4\pi 7^2$ then $\div$ by 2

$= 616$ then $\div$ by 2

$= 308 \text{ cm}^2$

Top Area $= \pi \times 7^2$

$= 154 \text{ cm}^2$

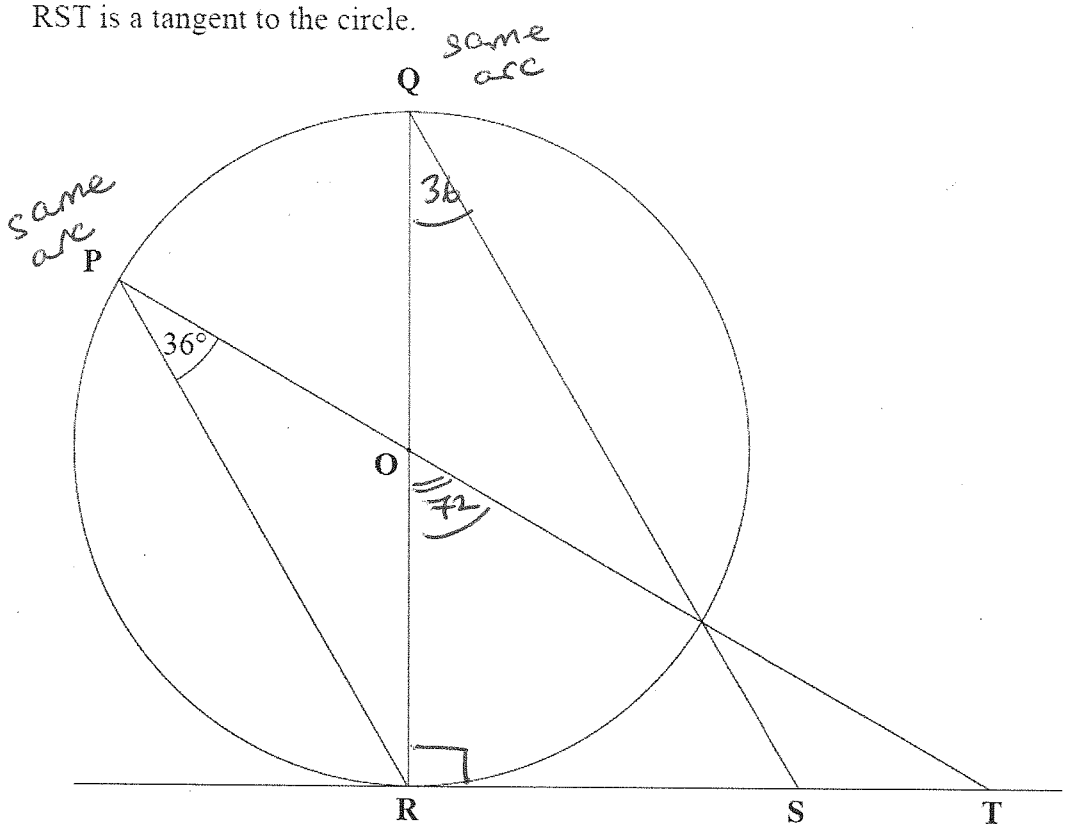
Total = 462 cm^2

Remember the units!!

17 **(a)** In the diagram shown, O is the centre of the circle.

P, Q and R are points on the circumference of the circle.

RST is a tangent to the circle.



Calculate the size of

(i) angle ROT,

angle at centre is twice 36° at the circumfere

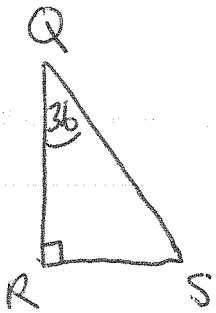
Answer 72 ° [1]

(ii) angle OTR,

tangent meets at 90°

Answer 18 ° [1]

(iii) angle QSR.



Answer 54° ° [1]