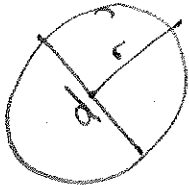


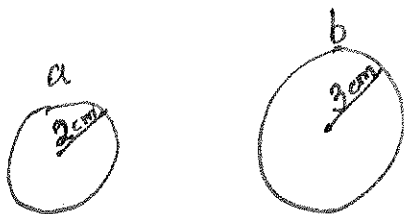
Area of Circles

$$A = \pi r^2$$



if you have diameter how do you get the radius?

$$r = \frac{1}{2} \times d \quad \equiv \quad r = \frac{d}{2}$$

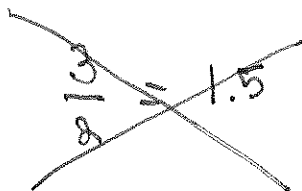


How much bigger is the circle with a radius of 3cm?

$$\begin{aligned} A_a &= \pi r_a^2 \\ &= \pi (2)^2 \\ &= \pi 4 \\ &= 12.56637 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} A_b &= \pi r_b^2 \\ &= \pi (3)^2 \\ &= \pi 9 \\ &= 28.27433 \text{ cm}^2 \end{aligned}$$

$$\frac{A_b}{A_a} = \frac{28.27433}{12.56637} = 2.2 \times \text{ bigger}$$



Circle Area WS

Find the area of the circles using the numbers provided.

1) $d = 12$

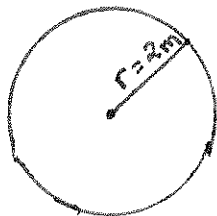
2) $r = 7$

3) $d = 3$

4) $r = 12$

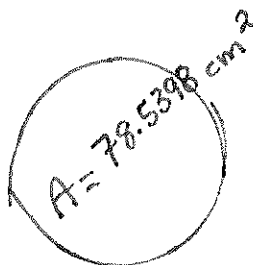
Using the circles below find the missing quantity

5)



$d = ?$

6)



$r = ?$