

Area of a Circle

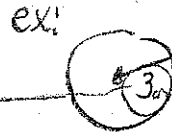
↳ space covered by the circle, $\left. \begin{array}{l} \text{units squared} \\ \text{cm}^2 \\ \text{m}^2 \\ \text{ft}^2 \end{array} \right\}$

$$A = \pi \times r^2$$

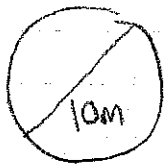
$$= 3.14 \times (3)^2$$

$$= 3.14 \times 3 \times 3$$

$$= 28.26 \text{ cm}^2$$



ex2



$$A = \pi \times r^2$$

$$= 3.14 \times (5)^2$$

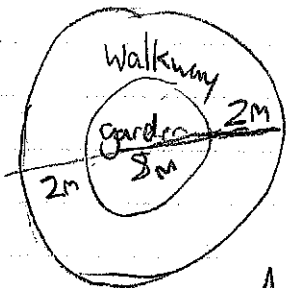
$$= 3.14 \times 25$$

$$= 78.5 \text{ m}^2$$

$$d \div 2 = r$$

$$10 \div 2 = 5$$

ex3: A circular pathway goes around a garden as seen below. What is the area of the walkway if the garden has a diameter of 8m and the walkway is 2m wide?



$$A_{\text{walkway}} = \pi r^2$$

$$= \pi \times 6^2$$

$$= 113.04 \text{ m}^2$$

$$A_{\text{garden}} = \pi r^2$$

$$= 3.14 \times 4^2$$

$$= 50.24 \text{ m}^2$$

$$A_{\text{walkway}} = A_{\text{O}} - A_{\text{garden}}$$

$$= 113.04 - 50.24$$

$$= 62.8 \text{ m}^2$$

p 24 # 5, 7, 9, 11, 13, 15, 3