

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## AREA OF CIRCLE AND AREA OF SECTOR OF A CIRCLE

Complete the following by filling in the values.

1. Find the area of a circle of diameter 196 mm. [use  $\pi = \frac{22}{7}$ ]

**Solution:****Using**

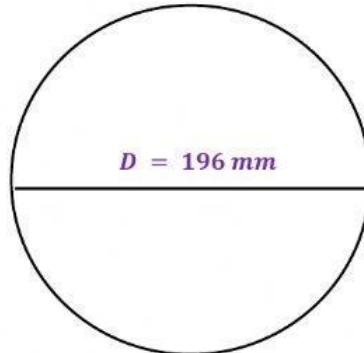
$$A = \frac{\pi D^2}{4}$$

$$A = \frac{22}{7} \times \frac{196}{4}^2$$

$$A = \frac{22}{7} \times \frac{196}{4} \times \frac{196}{1}$$

$$A = 22 \times \underline{\hspace{2cm}} \times 196$$

$$= \underline{\hspace{2cm}} \text{ mm}^2$$



2. Calculate the area of a circle given a radius of 35 cm.

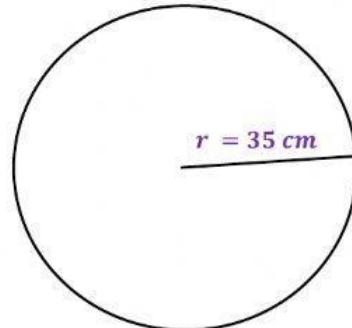
**Solution**

$$A = \pi r^2$$

$$A = \frac{22}{7} \times \frac{35}{1}^2$$

$$A = 22 \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \text{ cm}^2$$



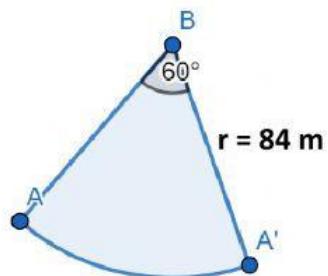
3. Calculate the area of the sectors shown.

**Solution:** Using  $A = \pi r^2 \frac{\theta}{360^\circ}$

$$A = \frac{22}{7} \times \underline{\hspace{2cm}} \times \frac{60}{360}^\circ$$

$$A = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \frac{1}{6} = \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \text{ m}^2$$



4. Solution: Using  $A = \pi r^2 \frac{\theta}{360^\circ}$

$$A = \frac{22}{7} \times \underline{\hspace{2cm}} \times \frac{210}{360}^\circ$$

$$A = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \frac{7}{12} = \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \text{ cm}^2$$

