

Name: _____ no. _____

Find the area of a circle of diameter 70 centimetres. Take $\pi = \frac{22}{7}$.



Solution:

$$\begin{aligned}\text{Radius of the circle} &= \frac{\text{diameter}}{2} \\ &= \frac{70}{2} \\ &= 35 \text{ cm}\end{aligned}$$

$$\begin{aligned}\text{Area of the circle} &= \pi r^2 \\ &= \frac{22}{7} \times 35 \times 35 \\ &= 22 \times 5 \times 35 \\ &= 3,850 \text{ cm}^2\end{aligned}$$

Answer: The area of the circle is **3,850 square centimetres**.

Circumference = $\pi \times 2 \times r = \pi \times D$ Area = $\pi \times r \times r = \pi \times r^2$ Take $\pi = \frac{22}{7}$

For the given radii and diameters of each circle, solve for the circumference and area. Round your answer to two decimal places.

- | | | |
|----------------------|--------------------------|------------------------------|
| a) radius = 7 cm | circumference = _____ cm | area = _____ cm ² |
| b) diameter = 105 cm | circumference = _____ cm | area = _____ cm ² |
| c) radius = 3.5 m | circumference = _____ m | area = _____ m ² |
| d) diameter = 56 m | circumference = _____ m | area = _____ m ² |
| e) radius = 14 cm | circumference = _____ cm | area = _____ cm ² |
| f) diameter = 21 cm | circumference = _____ cm | area = _____ cm ² |