

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