



The National
Orthodox School
Shmaisani

Key answer

Name:

worksheet (3) Math

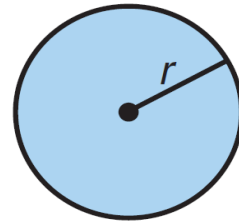
Grade-Section:7 (A)

Date:

radius r

$$C = 2\pi r$$

$$A = \pi r^2$$



1) A circle has a circumference of 62.8 m
, what is its radius?

Use $\pi \approx 3.14$

$$C = 2\pi r$$

$$62.8 = 2 \times 3.14 \times r$$

$$62.8 = 6.28 \times r$$

$$\frac{62.8 \times 100}{6.28 \times 100} = \frac{6280}{6.28} \times r$$

$$\frac{6280}{6.28} = r$$

$$r = 10 \text{ m}$$

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2) a circle has a circumference of 24π m, what is its diameter?

$$C = 2\pi r$$

$$24\pi = 2\pi * r$$

$$\frac{24}{2} = \frac{2 * r}{2} \Rightarrow r = 12 \text{ m} \rightarrow d = 12 * 2 = 24 \text{ m}$$

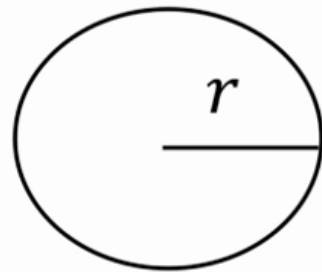
3) What is the radius of this circle?

$$C = 2\pi r$$

$$14.8\pi = 2\pi * r$$

$$\frac{14.8}{2} = r$$

$$r = 7.4 \text{ m}$$



Circumference = (14.8π) m

4) A circle has a circumference of 88 m, what is its radius?

Use $\pi \approx \frac{22}{7}$

$$C = 2\pi r$$

$$88 = \frac{2 \times 22}{7} \times r$$

$$88 = \frac{44}{7} \times r$$

$$\frac{7}{44} \times 88 = \frac{44}{7} \times r \times \frac{7}{44}$$

$$\frac{7 \times 88}{44} = r \Rightarrow r = 14 \text{ m}$$

5) If the area of a circle is $(225\pi) \text{ m}^2$, find its radius?

$$A = \pi r^2$$

$$225\pi = \pi r^2$$

$$r^2 = 225 \rightarrow r = \sqrt{225} = 15 \text{ m}$$

6) If the area of a circle is $(314) \text{ m}^2$, find its diameter?

$$A = \pi r^2$$

$$314 = 3.14 \times r^2$$

$$\frac{314}{3.14} = \frac{3.14 \times r^2}{3.14}$$

$$\frac{314 \times 100}{3.14 \times 100} = r^2$$

$$\frac{31400}{3.14} = r^2$$

$$r^2 = 100 \Rightarrow r = 10 \text{ m}$$

$$\rightarrow d = 20 \text{ m}$$

7) If the area of a circle is $(154) \text{ m}^2$, find its radius?

$$\text{use } \pi = \frac{22}{7}$$

$$A = \pi r^2$$

$$154 = \frac{22}{7} \times r^2$$

$$\frac{7}{22} \times 154 = \frac{22}{7} \times r^2 \times \frac{7}{22}$$
$$\frac{7}{22} \times \frac{154}{1} = r^2$$

$$r^2 = 49$$

$$\rightarrow r = \sqrt{49} = 7 \text{ m}$$

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