

Circumference/Area Guided Practice Worksheet

1. Given the following diameters, find the circumference. Write the formula as you complete each problem and show all your work. Remember to label appropriately.  $C = \pi d$  or  $C = 2\pi r$

A. Diameter = 4 cm.

B. Diameter = 7 in.

C. Diameter = 10 m.

2. Given the following circumferences, find the diameter. Write the formula as you complete each problem, show all your work, and round each answer to the nearest hundredth. Remember to label appropriately.

A. Circumference = 48 cm

B. Circumference = 6.28 in.

C. Circumference = 24 cm

3. Given the following radii, find the circumference. Write the formula as you complete each problem and show all your work. Remember to label appropriately.

A. Radius = 8 in.

B. Radius = 4 cm.

C. Radius = 10 m.

4. Given the following circumferences, find the radius. Write the formula as you complete each problem, show all your work, and round each answer to the nearest hundredth. Remember to label appropriately.

A. Circumference = 12.56 ft.

B. Circumference = 72 cm.

C. Circumference = 50.24 m.

5. Given the following radii, find the area. Write the formula as you complete each problem and show all your work. Remember to label appropriately.  $A = \pi r^2$

A. Radius = 6 in.

B. Radius = 2 m.

C. Radius = 10 ft.

6. Given the following areas, find the radius. Write the formula as you complete each problem, show all your work, and round each answer to the nearest hundredth. Remember to label appropriately.

A. Area = 28.26 in<sup>2</sup>

B. Area = 78.5 m<sup>2</sup>

C. Area = 63 ft<sup>2</sup>

7. Given the following diameters, find the area. Write the formula as you complete each problem and show all your work. Remember to label appropriately.

A. Diameter = 14 ft.

B. Diameter = 8 in.

C. Diameter = 7 m.

8. Given the following areas, find the diameter. Write the formula as you complete each problem, show all your work, and round each answer to the nearest hundredth. Remember to label appropriately.

A. Area = 113.04 in<sup>2</sup>

B. Area = 50.24 cm<sup>2</sup>

C. Area = 75 m<sup>2</sup>

Given the Circumference or Area find Radius and/or Diameter

Part I. Find the diameter.

1)  $C = 34\pi_{\text{cm}}$

2)  $C = 650\pi_{\text{cm}}$

3)  $C = 74\pi_{\text{cm}}$

4)  $C = 241\pi_{\text{cm}}$

5)  $C = 479_{\text{cm}}$

6)  $C = 802_{\text{cm}}$

7)  $C = 385_{\text{cm}}$

8)  $C = 962_{\text{cm}}$

Part II. Find the radius.

1)  $C = 187\pi_{\text{cm}}$

2)  $C = 232\pi_{\text{cm}}$

3)  $C = 284\pi_{\text{cm}}$

4)  $C = 583\pi_{\text{cm}}$

5)  $C = 974_{\text{cm}}$

6)  $C = 631_{\text{cm}}$

7)  $C = 843_{\text{cm}}$

8)  $C = 726_{\text{cm}}$

Part III.

Given the AREA, Find the Radius and Diameter (Round to the nearest TENTH!)

1)  $A = 484\pi\text{cm}^2$

2)  $A = 144\pi\text{cm}^2$

3)  $A = 314\pi\text{cm}^2$

4)  $A = 940\pi\text{cm}^2$

5)  $A = 25\pi\text{cm}^2$

6)  $A = 169\pi\text{cm}^2$

7)  $A = 74\pi\text{cm}^2$

8)  $A = 256\pi\text{cm}^2$

9)  $A = 173\text{cm}^2$

10)  $A = 688\text{cm}^2$

11)  $A = 529\text{cm}^2$

12)  $A = 64\text{cm}^2$

13)  $A = 225\text{cm}^2$

14)  $A = 729\text{cm}^2$

15)  $A = 85\text{cm}^2$

16)  $A = 467\text{cm}^2$

Solve the problems below using your knowledge of circumference and area concepts. Use 3.14 for Pi.

1. If the radius of a circle is 3.5 in, then what is the diameter?
2. If the diameter of a circle is 9 cm, then what is the radius?
3. What is the circumference of a circle if the diameter is 7 ft?
4. What is the area of a circle if the radius is 5 cm?
5. If the circumference of a circle is 25.12 in, then what is the diameter?
6. If the area of a circle is  $50.24 \text{ in}^2$ , then what is the radius?
7. Find the circumference of a circle if the radius is 4.9 m.
8. Find the area of a circle if the diameter is 8 cm.
9. The distance around a bicycle wheel is 113.04 in. What is the diameter?
10. The area of a compact disc is  $78.5 \text{ cm}^2$ . What is the radius?
11. The circumference of a dinner plate is 47.1 in. What is the radius?
12. The area of a CD-ROM label is  $113.04 \text{ cm}^2$ . What is its radius?