

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

GEOMETRY

PERIOD: \_\_\_\_\_

### Review – Circumference & Area of Circles

Find the radius of the circle with the given diameter.

1. 8 inches

2. 60 mm

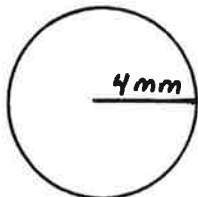
Find the diameter of the circle with the given radius.

3. 20 feet

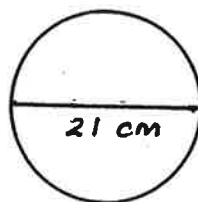
4. 5 meters

Find the circumference of the circle.

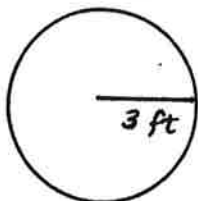
5. Use 3.14 for  $\pi$ .



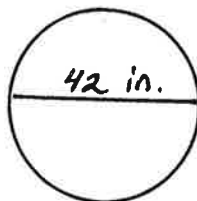
6. Use  $\frac{22}{7}$  for  $\pi$ .



7. Round your answer to the nearest tenth.

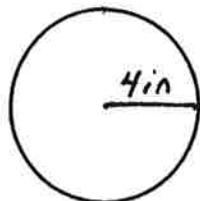


8. Use 3.14 for  $\pi$ .

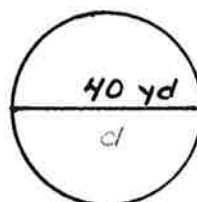


Find the area of the circle.

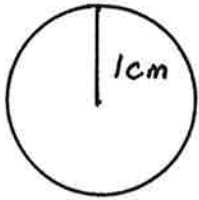
9. Use 3.14 for  $\pi$ .



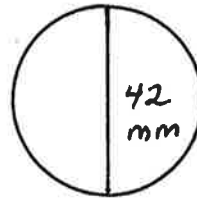
10. Use  $\frac{22}{7}$  for  $\pi$ .



11. Round your answer to the *nearest tenth*.



12. Use 3.14 for  $\pi$ .



13. If the circumference of a circle is 7.9 inches, find the area of this circle. *Round to the nearest tenth.*

14. The radius of a circle is 7 inches.

a) What is the circumference of the circle? Use  $\frac{22}{7}$  for  $\pi$ .

b) Suppose the radius is doubled to 14 inches. What is the circumference of this circle?

c) Explain how doubling the radius affects the circumference.

15. The radius of a circle is 6 inches.

a) What is the area of the circle? Use 3.14 for  $\pi$ .

b) Suppose the radius is doubled to 12 inches. What is the area of this circle?

c) Explain how doubling the radius affects the area.

16. A circular garden has an area of  $64\pi$  square yards. What is the circumference of the garden? Give your answer in terms of  $\pi$ .

17. A company makes steel lids that have a diameter of 13 inches. What is the area of each lid? Round your answer to the nearest hundredth.

18. Carol wants to put ribbon around the top and bottom of a circular lampshade. The diameter of the shade is 21 inches. Use 3.14 for  $\pi$ .

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### Review - Circumference & Area of Circles

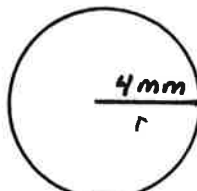
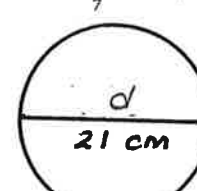
Find the radius of the circle with the given diameter.

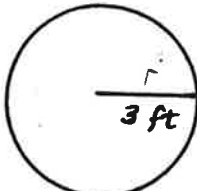
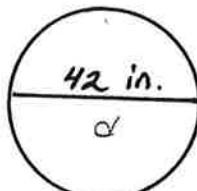
<p>1. <math>d = 8</math> inches</p> $r = \frac{d}{2} = \frac{8}{2} = 4$ <p style="text-align: center;">4 in</p>	<p>2. 60 mm</p> $r = \frac{d}{2} = \frac{60}{2} = 30$ <p style="text-align: center;">30 mm</p>
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Find the diameter of the circle with the given radius.

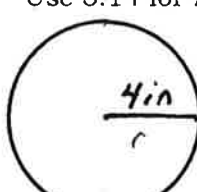
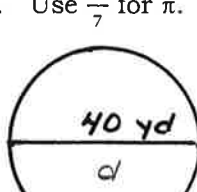
<p>3. <math>r = 20</math> feet</p> $d = 2r$ $2(20)$ <p style="text-align: center;">40 ft</p>	<p>4. 5 meters</p> $d = 2r$ $2(5)$ <p style="text-align: center;">10 m</p>
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Find the circumference of the circle.

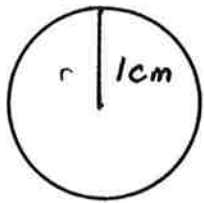
<p>5. Use 3.14 for <math>\pi</math>.</p>  $C = 2\pi r$ $C = 2(3.14)(4)$ $C = 25.12$ <p style="text-align: center;">mm</p>	<p>6. Use <math>\frac{22}{7}</math> for <math>\pi</math>.</p>  $C = \pi d$ $C = \frac{22}{7}(21)$ $C = 66$ <p style="text-align: center;">cm</p>
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<p>7. Round your answer to the nearest tenth.</p>  $C = 2\pi r$ $C = 2\pi(3)$ $C \approx 18.8$ <p style="text-align: center;">ft</p>	<p>8. Use 3.14 for <math>\pi</math>.</p>  $C = \pi d$ $C = 3.14(42)$ $C = 131.88$ <p style="text-align: center;">in</p>
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Find the area of the circle.

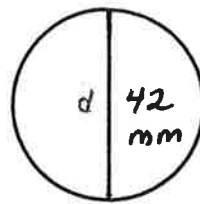
<p>9. Use 3.14 for <math>\pi</math>.</p>  $A = \pi r^2$ $A = (3.14)(4)^2$ $A = 50.24$ <p style="text-align: center;"><math>\text{in}^2</math></p>	<p>10. Use <math>\frac{22}{7}</math> for <math>\pi</math>.</p>  $A = \pi r^2$ $A = \frac{22}{7}(20)^2$ $A = 1257.142857$ <p style="text-align: center;">yd</p> <p style="text-align: center;"><math>r = 20</math> yd</p>
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11. Round your answer to the *nearest tenth*.



$$A = \pi r^2$$
$$A = \pi (1)^2$$
$$A = 3.1 \text{ cm}^2$$

12. Use 3.14 for  $\pi$ .



$$r = 21$$

$$A = \pi r^2$$
$$A = (3.14)(21)^2$$
$$A = 1384.74$$
$$\text{mm}^2$$

13. If the circumference of a circle is 7.9 inches, find the area of this circle. Round to nearest tenth.

$$C = 7.9 \text{ in}$$
$$A = \underline{\hspace{2cm}}$$

$$C = \pi d$$
$$\frac{7.9}{\pi} = \frac{\pi d}{\pi}$$
$$d = 2.514648101$$
$$r = 1.3$$

$$A = \pi r^2$$
$$A = \pi (1.3)^2$$
$$A = 5.3 \text{ in}^2$$

★ 14. The radius of a circle is 7 inches.

a) What is the circumference of the circle? Use  $\frac{22}{7}$  for  $\pi$ .

$$C = 2\pi r$$
$$C = 2\left(\frac{22}{7}\right)(7)$$
$$C = 44$$

b) Suppose the radius is doubled to 14 inches. What is the circumference of this circle?

$$C = 2\pi r$$
$$C = 2\left(\frac{22}{7}\right)(14)$$
$$C = 88$$

c) Explain how doubling the radius affects the circumference.

By doubling the radius, the circumference also doubles.

15. The radius of a circle is 6 inches.

a) What is the area of the circle? Use for 3.14 for  $\pi$ .

$$A = \pi r^2$$

$$A = 3.14 (6)^2$$

$$A = 113.04 \text{ in}^2$$

b) Suppose the radius is doubled to 12 inches. What is the area of this circle?

$$A = \pi r^2$$

$$A = 3.14 (12)^2$$

$$A = 452.16$$

c) Explain how doubling the radius affects the area.

By doubling the radius, the area of circle quadruples.

16. A circular garden has an area of  $64\pi$  square yards. What is the circumference of the garden? Give your answer in terms of  $\pi$ .

$$A = 64\pi$$

$$C = \underline{\hspace{2cm}}$$

$$A = \pi r^2$$

$$\frac{64\pi}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{64} = \sqrt{r^2}$$

$$8 = r$$

$$C = 2\pi r$$

$$C = 2\pi (8)$$

$$C = 16\pi$$

17. A company makes steel lids that have a diameter of 13 inches. What is the area of each lid? Round your answer to the nearest hundredth.

$$d = 13$$

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

$$r = 6.5$$

$$A = \pi r^2$$

$$A = \pi (6.5)^2$$

$$A = 132.73 \text{ in}^2$$

18. Carol wants to put ribbon around the top and bottom of a circular lampshade. The diameter of the shade is 21 inches. Use 3.14 for  $\pi$ .

How much ribbon is needed?

$$C = \pi d$$

$$C = 3.14 (21)$$

$$C = 65.94$$

$$65.94 (2)$$

$$131.88 \text{ in}$$