A circle is named by the point in the center.

A radius is a line segment from the center of the circle to the edge.

A diameter is a line segment that passes through the center of a circle. It has two points on the outside edge of the circle.

Write the name of each circle, radius, and diameter.

1. Circle: \( E \)
   Radius: \( EO \)
   Diameter: \( RG \)

2. Circle: \( \_\_\_\_\_ \)
   Radius: \( \_\_\_\_\_ \)
   Diameter: \( \_\_\_\_\_ \)

3. Circle: \( \_\_\_\_\_ \)
   Radius: \( \_\_\_\_\_ \)
   Diameter: \( \_\_\_\_\_ \)

4. Circle: \( \_\_\_\_\_ \)
   Radius: \( \_\_\_\_\_ \)
   Diameter: \( \_\_\_\_\_ \)

5. Circle: \( \_\_\_\_\_ \)
   Radius: \( \_\_\_\_\_ \)
   Diameter: \( \_\_\_\_\_ \)

6. Circle: \( \_\_\_\_\_ \)
   Radius: \( \_\_\_\_\_ \)
   Diameter: \( \_\_\_\_\_ \)

Super Teacher Worksheets - www.superteacherworksheets.com
Radius, Diameter, & Circumference

The radius of this circle is _____________.
The diameter of this circle is ________________.
The circumference of this circle is ________________.

The radius of this circle is ________________.
The diameter of this circle is ________________.
The circumference of this circle is ________________.

The radius of this circle is ________________.
The diameter of this circle is ________________.
The circumference of this circle is ________________.

The radius of this circle is ________________.
The diameter of this circle is ________________.
The circumference of this circle is ________________.

Super Teacher Worksheets - www.superteacherworksheets.com
Radius and Diameter of a Circle

Radius and Diameter

1. Which circle has a diameter of 36 km? ______ 2. Which circle has a radius of 16 km? ______
3. Which circle has a radius of 9 cm? ______ 4. Which circle has a radius of 7 mm? ______
5. Which circle has a diameter of 24 m? ______ 6. Which circle has a radius of 8 m? ______
7. What is the radius of circle A? ______ 8. What is the diameter of circle J? ______
9. What is the radius of circle B? ______ 10. What is the radius of circle F? ______
11. If the circles were drawn to scale, which circle would be the smallest? ______
12. If the circles were drawn to scale, which circle would be the largest? ______
13. If the circles were drawn to scale, which two circles are exactly the same size? ______ and ______
14. If the circles were drawn to scale, which circle would be larger than J, but smaller than F? ______
Radius and Diameter

What is the radius and diameter of each circle?

a. radius = ________ diameter = ________
   5 mm

b. radius = ________ diameter = ________
   12 cm

c. radius = ________ diameter = ________
   9 m

d. radius = ________ diameter = ________
   16 km

e. radius = ________ diameter = ________
   11 m

f. radius = ________ diameter = ________
   30 mm

g. radius = ________ diameter = ________
   26 km

h. radius = ________ diameter = ________
   7 cm

i. radius = ________ diameter = ________
   18 km

j. radius = ________ diameter = ________
   1 m

k. radius = ________ diameter = ________
   17 cm

l. radius = ________ diameter = ________
   50 mm

m. John has a round swimming pool. The distance from the center of the pool to the edge is 3 meters. What is the diameter of John's pool?

   answer: ________________
Finding the Area of a Circle

Find the area of each circle. Circles are not to scale.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<td>153.94 cm²</td>
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<td>113.1 cm²</td>
<td>452.39 cm²</td>
<td>254.47 cm²</td>
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1) 2)
3) 4)
5) 6)
7) 8)
9) 10)
Finding the Area of a Circle

Find the area of each circle. Circles are not to scale.

1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

Answers

1. __________
2. __________
3. __________
4. __________
5. __________
6. __________
7. __________
8. __________
9. __________
10. __________
Circumference of a Circle

To find the circumference of a circle, use the formula \( \pi \times \text{diameter} = \text{circumference} \). This formula is often written as \( C = \pi \times d \).

The circle pictured here has a diameter of 10 cm.

\[ d = 10 \text{ cm} \]
\[ \pi = 3.14 \]
\[ 10 \text{ cm} \times 3.14 = 31.4 \text{ cm} \]

Find the circumference of each circle. Use 3.14 for \( \pi \).

a. ___________  b. ___________  c. ___________

\[ \text{d. } \frac{6}{10} \text{ cm} \]
\[ \text{e. } \frac{7}{11} \text{ m} \]
\[ \text{f. } \frac{4}{5} \text{ km} \]

\[ \text{g. } \text{Karla and Jeremy have a circular pool with a diameter of 12 feet. What is the circumference of the pool?} \]

\[ \pi \times 12 \text{ ft} = \pi \times 12 \text{ ft} \]

\[ \text{Circumference } = 37.68 \text{ ft} \]

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Circumference of a Circle

To find the circumference of a circle, use the formula \(2 \times \pi \times \text{radius} = \text{circumference}\). This formula is often written as \(C = 2 \times \pi \times r\).

The circle pictured here has a radius of 5 cm.
- \(r = 5\) cm
- \(\pi = 3.14\)
- \(2 \times 3.14 \times 5 \text{ cm} = 31.4 \text{ cm}\)

Find the circumference of each circle. Use 3.14 for \(\pi\).

a.  

b.  

c.  

d.  

e.  

f.  

g. Mr. Tobias is buying new tires for his bike. He wants to make sure the new tires will fit on his bike but the only measurement he has is the radius of 13 inches. What is the circumference of the new tires?
Circumference of a Circle

\[ C = \pi \times d \]
\[ d = 10 \text{ cm} \]
\[ \pi \approx 3.14 \]
\[ 3.14 \times 10 \text{ cm} = 31.4 \text{ cm} \]

\[ C = 2 \times \pi \times r \]
\[ r = 5 \text{ cm} \]
\[ \pi \approx 3.14 \]
\[ 2 \times 3.14 \times 5 \text{ cm} = 31.4 \text{ cm} \]

Find the circumference of each circle. Use 3.14 for \( \pi \).

a. \[ \text{C} \]

b. \[ \text{C} \]

c. \[ \text{C} \]

d. \[ \text{C} \]

e. \[ \text{C} \]

f. \[ \text{C} \]

Find the missing measurement for each circle.

\[ g. \quad r = 3 \text{ mm}, \quad d = 6 \text{ mm}, \quad C = \text{ } \]
\[ h. \quad r = 10 \text{ in.}, \quad d = \text{ }, \quad C = 62.80 \text{ in.} \]

\[ i. \quad r = \text{ }, \quad d = 5 \text{ m}, \quad C = 15.70 \text{ m} \]
\[ j. \quad r = 2 \text{ ft}, \quad d = \text{ }, \quad C = \text{ } \]
1. How is circumference similar to perimeter? How is it different?

2. Tell how the number pi (π) is calculated.

3. Laura has a circular kiddie pool in her backyard. The diameter of the pool is 5 feet. What is the circumference of the pool? Explain how you found the answer.

4. Hans measured the circumference and diameter of a pizza object in centimeters. He divides the two numbers and finds the answer is pi.

Luke measures the circumference and diameter of the same pizza in millimeters instead of centimeters. If he divides the circumference by the diameter, will his answer also equal pi?

Explain.

5. Every year March 14 is known as International Pi Day. Why was this particular day chosen to celebrate pi?
Finding the Area and Circumference of a Circle

Find the area and circumference of each circle. Circles are not to scale.

<table>
<thead>
<tr>
<th>1a</th>
<th>2a</th>
<th>3a</th>
<th>4a</th>
<th>5a</th>
<th>6a</th>
<th>7a</th>
<th>8a</th>
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<td>660.52</td>
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<td>21.99</td>
<td>78.54</td>
<td>65.97</td>
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<td>18.85</td>
<td>706.86</td>
<td>490.87</td>
<td>28.27</td>
<td>346.36</td>
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<td></td>
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</tr>
</tbody>
</table>

Answers:

1a. ___________
1c. ___________
2a. ___________
2c. ___________
3a. ___________
3c. ___________
4a. ___________
4c. ___________
5a. ___________
5c. ___________
6a. ___________
6c. ___________
7a. ___________
7c. ___________
8a. ___________
8c. ___________
9a. ___________
9c. ___________
10a. ___________