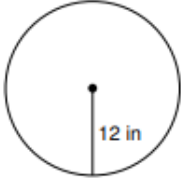
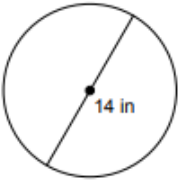
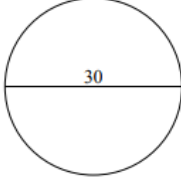
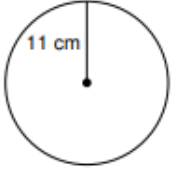
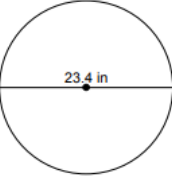
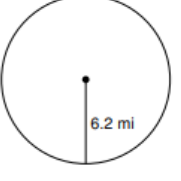
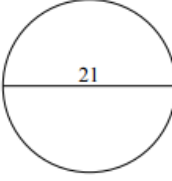


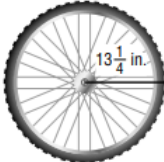
## Area and Circumference

- The area of a circle  $A$  is given by the equation  $A = \pi r^2$ .  $r$  is the radius of the circle.
- The circumference of a circle  $C$  is given by the equation  $C = \pi d$  or  $C = 2\pi r$ .  $r$  is the radius of the circle and  $d$  is the diameter depending on which equation you choose.

**For #1-10 find the circumference and area of each circle pictured or described. Leave answer in terms of  $\pi$ .**

<p>1. Find the <i>circumference</i> and <i>area</i>.</p> 	<p>6. Find the <i>circumference</i> and <i>area</i>.</p> <p>radius of circle = 10</p>
<p>2. Find the <i>circumference</i> and <i>area</i>.</p> 	<p>7. Find the <i>circumference</i> and <i>area</i>.</p> <p>diameter of circle = 6</p>
<p>3. Find the <i>circumference</i> and <i>area</i>.</p> 	<p>8. Find the <i>circumference</i> and <i>area</i>.</p> 
<p>4. Find the <i>circumference</i> and <i>area</i>.</p> <p>radius of circle = 4</p>	<p>9. Find the <i>circumference</i> and <i>area</i>.</p> 
<p>5. Find the <i>circumference</i> and <i>area</i>.</p> 	<p>10. Find the <i>circumference</i> and <i>area</i>.</p> 

For #11-15 given the area or circumference of the circle, state the **radius**, **diameter** and **area/circumference**.

<p>11. <math>A = 49\pi</math></p> <p><math>r =</math></p> <p><math>d =</math></p> <p><math>C =</math></p> <p>Leave answer in terms of <math>\pi</math>.</p>	<p>16.</p> <p><b>BICYCLES</b> A bicycle tire has a radius of <math>13\frac{1}{4}</math> inches. How far will the bicycle travel in 40 rotations of the tire? Round to the nearest tenth.</p> 
<p>12. <math>C = 100\pi</math></p> <p><math>r =</math></p> <p><math>d =</math></p> <p><math>A =</math></p> <p>Leave answer in terms of <math>\pi</math>.</p>	<p>17.</p> <p><b>FOUNTAINS</b> The circular fountain in front of the courthouse has a radius of 9.4 feet. What is the circumference of the fountain? Round to the nearest tenth.</p>
<p>13. <math>A = 64\pi</math></p> <p><math>r =</math></p> <p><math>d =</math></p> <p><math>C =</math></p> <p>Leave answer in terms of <math>\pi</math>.</p>	<p>18.</p> <p><b>LANDSCAPING</b> Joni has a circular garden with a diameter of <math>14\frac{1}{2}</math> feet. If she uses 2 teaspoons of fertilizer for every 25 square feet of garden, how much fertilizer will Joni need for her entire garden? Round to the nearest tenth.</p>
<p>14. <math>C = 12\pi</math></p> <p><math>r =</math></p> <p><math>d =</math></p> <p><math>A =</math></p> <p>Leave answer in terms of <math>\pi</math>.</p>	<p>19.</p> <p><b>PETS</b> A dog is leashed to a point in the center of a large yard, so the area the dog is able to explore is circular. The leash is 20 feet long. What is the area of the region the dog is able to explore? Round to the nearest tenth.</p>
<p>15. <math>A = 100\pi</math></p> <p><math>r =</math></p> <p><math>d =</math></p> <p><math>C =</math></p> <p>Leave answer in terms of <math>\pi</math>.</p>	<p>20.</p> <p><b>WINDOWS</b> Find the area of the window shown below. Round to the nearest tenth.</p> 