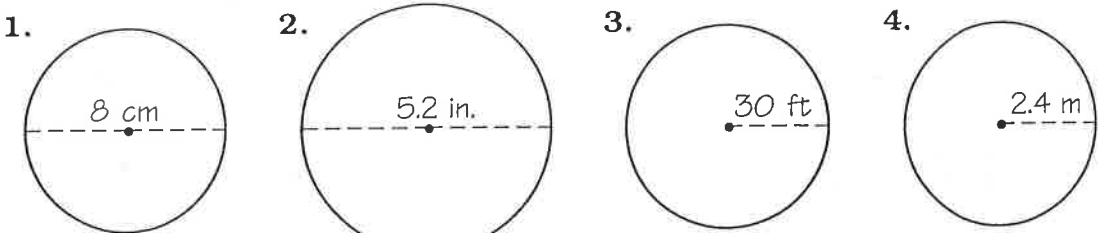


What Do You Call It When a Bunch of Kids Throw Circles at Each Other?

A PI FIGHT
 T H U P A T E
 S T H U P A T E
 I G O S T H U P A T E
 F N B I G O S T H U P A T E
 L I F N B I G O S T H U P A T E
 R O W L I F N B I G O S T H U P A T E
 P E R O W L I F N B I G O S T H U P A T E
 A P P E R O W L I F N B I G O S T H U P A T E
 T O G A P P E R O W L I F N B I G O S T H U P A T E
 H T O G A P P E R O W L I F N B I G O S T H U P A T E
 T H T O G A P P E R O W L I F N B I G O S T H U P A T E
 1.7 ft
 1570 m
 188.4 ft
 25 in.
 0.35 in.
 275.6 in.
 7.8 m
 15.1 m
 7.5 in.
 51.4 ft
 25.1 cm
 288 in.
 1672 m
 0.42 in.
 23.9 ft
 6.3 m
 243.4 yd
 44.7 cm
 219.8 yd
 16.3 in.
 52.9 cm
 22.5 ft
 288.4 yd
 38.6 m
 1909 m
 2.2 ft
 47.1 in.

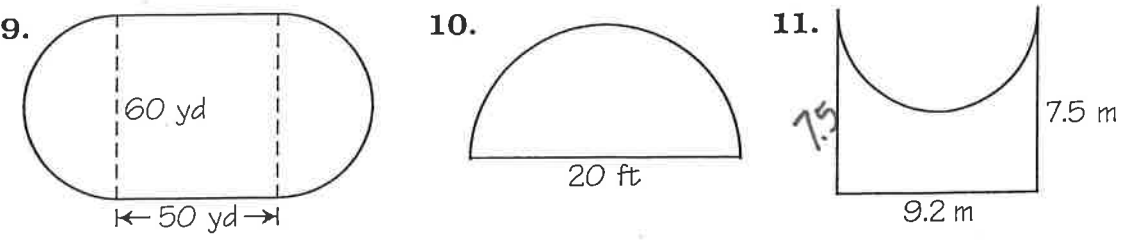
Cross out the letter next to each correct answer.
Most answers are rounded. Use 3.14 for π .

Use the diameter (d) or radius (r) to find the circumference.



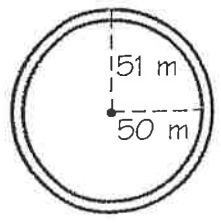
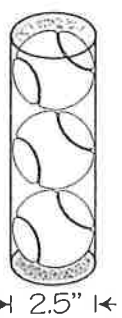
5. $d = 15\text{ in.}$ 6. $d = 70\text{ yd}$ 7. $r = 250\text{ m}$ 8. $r = 3.8\text{ ft}$

Find the perimeter. All curves shown are semicircles.



Solve.

12. A dartboard has a circumference of 78.5 in. What is the diameter?
13. A clock has a circumference of 166 cm. What is the diameter?
14. A pizza has a circumference of 47.1 in. What is the radius?
15. A tire has a circumference of 10.7 ft. What is the radius?
16. The first Ferris wheel, designed by George Ferris, was built in 1893 in Paris, France. It had a diameter of 76 m. About how far would you travel in 8 turns of this wheel?
17. A 10-speed bicycle tire has a diameter of 27 in. In highest gear, the tire rotates 3.4 times with each pedal turn. About how far does the bike travel, in this gear, with each pedal turn?
18. A can contains 3 tennis balls, tightly packed. Each ball has a diameter of 2.5 in. How much greater is the circumference of the can than the height of the can?
19. Two runners are to race one lap on a circular track. The radius to the inside lane is 50 m. The radius to the outside lane is 51 m. How much of a head start should the runner on the outside get?



12.4 Circumference

Find the diameter of each circle. Use 3.14 for the value of π . Round your answer to the nearest tenth.

1) circumference = 56.5 in

2) circumference = 50.2 m

$$C = \pi d$$
$$56.5 = (3.14)d$$

$$18.0 \text{ in} \approx d$$

$$C = \pi d$$
$$50.2 = (3.14)d$$

$$16.0 \text{ m} \approx d$$

Find the radius of each circle. Use 3.14 for the value of π . Round your answer to the nearest tenth.

3) circumference = 50.2 in

4) circumference = 37.7 km

$$C = 2\pi r$$
$$50.2 = 2(3.14)r$$
$$50.2 = 6.28r$$

$$8 \text{ m} \approx r$$

$$C = 2\pi r$$
$$37.7 = 2(3.14)r$$
$$37.7 = 6.28r$$

$$6 \text{ km} \approx r$$

Key

12.4 What do you Call it When a Bunch of Kids Throw Circles at Each Other?

For full credit, you must show at least 3 steps for every problem.

<p>1</p> $C = \pi D$ $= (3.14)(8)$ $= 25.1 \text{ cm}$	<p>2</p> $C = \pi D$ $= (3.14)(5.2)$ $= 16.3 \text{ in}$	<p>3</p> $C = 2\pi r$ $= 2(3.14)(30)$ $= 188.4 \text{ ft}$	<p>4</p> $C = 2\pi r$ $= 2(3.14)(24)$ $= 15.1 \text{ M}$
<p>5</p> $C = \pi D$ $= (3.14)(15)$ $= 47.1 \text{ in}$	<p>6</p> $C = \pi D$ $= (3.14)(70)$ $= 219.8 \text{ yd}$	<p>7</p> $C = 2\pi r$ $= 2(3.14)(250)$ $= 1570 \text{ M}$	<p>8</p> $C = 2\pi r$ $= 2(3.14)(3.8)$ $= 23.9 \text{ ft}$
<p>9</p> <p><u>Rectangle</u> $50 \times 2 = 100$</p> <p><u>Circle</u> $C = \pi D$ $= (3.14)(60)$ $= 188.4$</p> <p><u>Combined</u> 288.4 yd</p>	<p>10</p> $C = \pi D$ $= (3.14)(20)$ $= 62.8$ <p>cut in half = 31.4</p> <p><u>add diameter</u> 51.4 ft</p>	<p>11</p> <p><u>Circle</u> $C = \pi D$ $= (3.14)(9.2)$ $= 28.8$</p> <p>cut in half = 14.4</p> <p><u>sides</u> $7.5 + 7.5 + 9.2$ 24.2</p> <p><u>Combined</u> 38.6 M</p>	<p>12</p> $C = \pi D$ $78.5 = 3.14 D$ $25 \text{ in} = D$
<p>13</p> $C = \pi D$ $166 = 3.14 D$ $52.9 \text{ cm} = D$	<p>14</p> $C = 2\pi r$ $47.1 = 2(3.14)r$ $47.1 = 6.28r$ $7.5 \text{ in} = r$	<p>15</p> $C = 2\pi r$ $10.7 = 2(3.14)r$ $10.7 = 6.28r$ $1.7 \text{ ft} = r$	<p>16</p> $C = \pi D$ $= (3.14)(76)$ $= 238.64$ <p>*8 turns = 1909 M</p>
<p>17</p> $C = \pi D$ $= (3.14)(27)$ $= 84.78$ <p>*3.4 times = 288 in</p>	<p>18</p> <p><u>Height of can:</u> $2.5 \times 3 = 7.5$</p> <p><u>Circumference</u> $C = \pi D$ $= (3.14)(2.5)$ $= 78.5$</p> <p><u>difference</u> $.35 \text{ in}$</p>	<p>19</p> <p><u>large circle</u> $C = 2\pi r$ $= 2(3.14)(51)$ $= 320.28$</p> <p><u>Small circle</u> $C = 2\pi r$ $= 2(3.14)(50)$ $= 314$</p> <p><u>difference</u> 6.3 M</p>	

