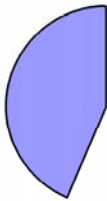


Similar Circles

1. Both sectors have the same central angle measure of 157 degrees. The scale factor of sector 1 to sector 2 is $\frac{3}{4}$. If the area of sector 2 is 87.64 square inches, what is the area of sector 1 to the nearest square inch? Use 3.14 as an approximation for pi.

Sector 1

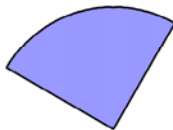


Sector 2

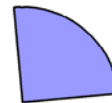


2. Both sectors have the same central angle measure of 90 degrees. The scale factor of sector 1 to sector 2 is $\frac{16}{13}$. If the area of sector 2 is 132.67 square inches, what is the radius of the circle with sector 1 to the nearest inch? Use 3.14 as an approximation for pi.

Sector 1

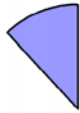


Sector 2



3. Both sectors have the same central angle measure of 43 degrees. The scale factor of sector 1 to sector 2 is $\frac{6}{7}$. If the area of sector 2 is 18.38 square inches, what is the diameter of the circle with sector 1 to the nearest inch? Use 3.14 as an approximation for pi.

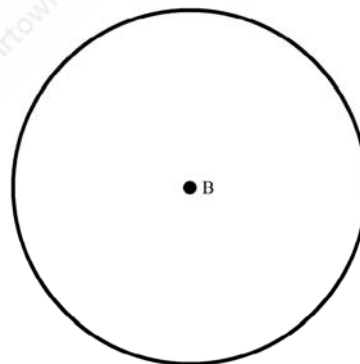
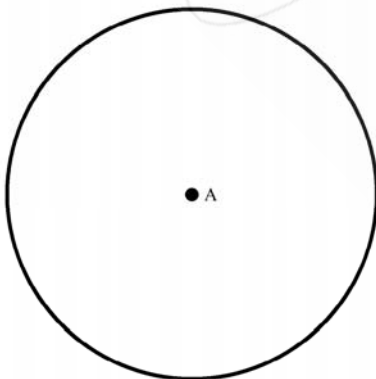
Sector 1



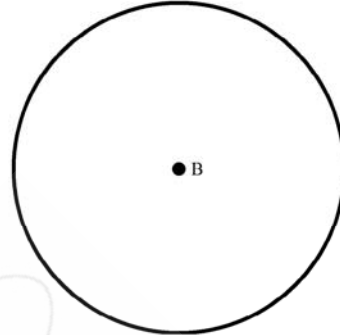
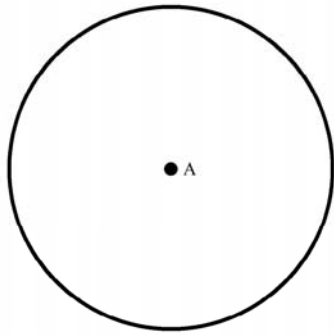
Sector 2



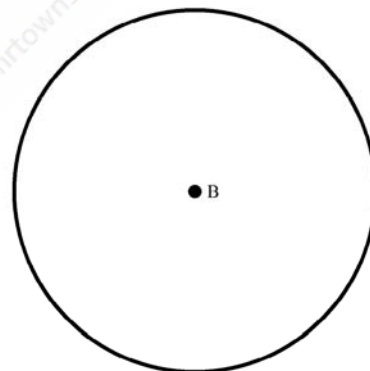
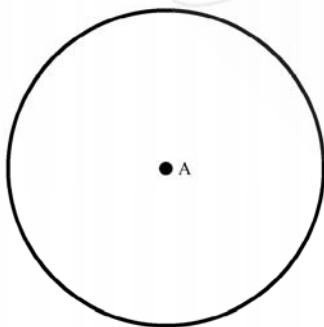
4. The scale factor of circle A to circle B is 1. If the area of circle B is 314 square feet, what is the area of circle A to the nearest square foot? Use 3.14 as an approximation for pi.



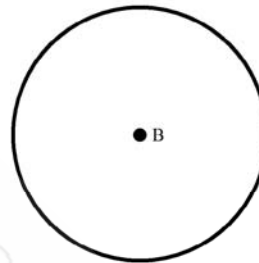
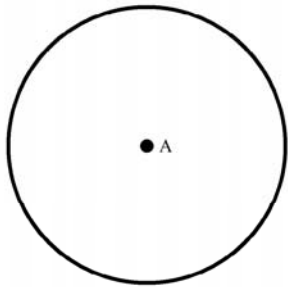
5. The scale factor of circle A to circle B is $\frac{21}{22}$. If the area of circle A is 1,384.74 square feet, what is the radius of circle B to the nearest foot? Use 3.14 as an approximation for pi.



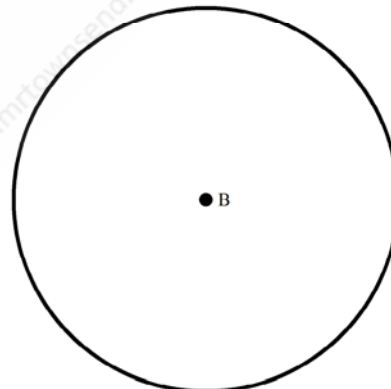
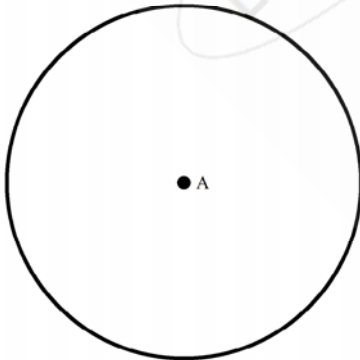
6. The scale factor of circle A to circle B is $\frac{17}{19}$. If the circumference of circle A is 106.76 feet, what is the circumference of circle B to the nearest foot? Use 3.14 as an approximation for pi.



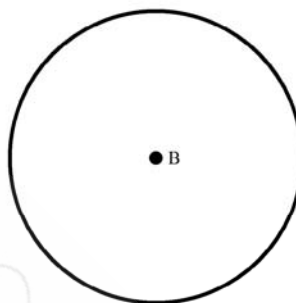
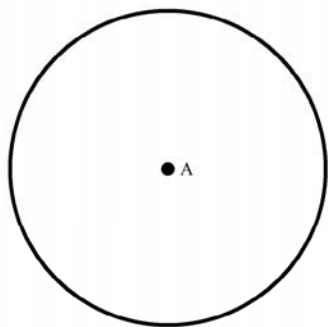
7. The scale factor of circle A to circle B is $\frac{29}{27}$. If the circumference of circle B is 169.56 inches, what is the radius of circle A to the nearest inch? Use 3.14 as an approximation for pi.



8. The scale factor of circle A to circle B is 1. If the circumference of circle A is 62.8 feet, what is the diameter of circle B to the nearest foot? Use 3.14 as an approximation for pi.



9. The scale factor of circle A to circle B is $\frac{21}{19}$. If the area of circle A is 1,384.74 square yards, what is the diameter of circle B to the nearest yard? Use 3.14 as an approximation for pi.



Learning is fun!



www.mrtownsend.com

Similar Circles
Answer Section

1. ANS: 49
2. ANS: 16
3. ANS: 6
4. ANS: 314
5. ANS: 22
6. ANS: 119
7. ANS: 29
8. ANS: 20
9. ANS: 38

