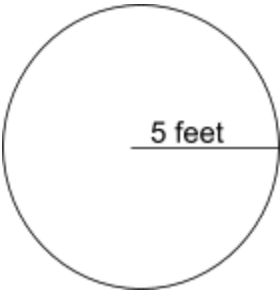


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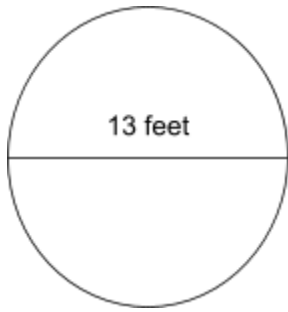
Area of Circles

Notes	Video Links & Practice Space
Vocabulary Area: the measure, in square units, of the _____ region of a closed two-dimensional figure Scale Factor: the constant that is _____ by the length of each side of a figure to produce an image that is the same shape as the original figure	Vocabulary (0:35)
Area of a Circle A = r = 	Area of a Circle (1:18)

Practice

1. Find the area of a circle with a diameter of 4.6 meters. Use 3.14 .

2.



3. Find the area of a circle with a radius of 6.73. Use $\frac{22}{7}$ for π .

[Find Area of a Circle \(5:10\)](#)

Find a Fraction of the Area of a Circle

1. A circle with a radius of 6 centimeters is cut into 4 equal pieces. How many square centimeters are 2 of the pieces?
2. A circle with a diameter of 18 centimeters is cut into 6 equal pieces. How many square centimeters are 3 of the pieces?

[Find a Fraction of the Area of a Circle \(4:44\)](#)

Practice

4. Publix sells cookie cake for \$11.45. If the cake has a diameter of 12 inches, what is the approximate cost per square inch of the cake? Round to the nearest hundredth.

5. A circle with a radius of 18 feet is cut into 6 equal pieces. How many square feet are 4 of the pieces? Use $\frac{22}{7}$ for Π .

6. The Robinson family ordered a Strawberry pie with a diameter of 24 inches for dessert. If one of the members ate $\frac{1}{6}$ of the pie, how many square inches of the pie are remaining? Use 3.14 Π .

[Area of Circle Practice Problems \(7:13\)](#)

Area with Scale Factor and Conversions Problem

Two cell phone companies claim they have the best coverage. Cell phone tower Team Talk-A-Lot reaches 5 miles in any direction. Cell phone tower Team Reach-A-Lot reaches 15 kilometers in any direction. Use 3.14 for π and round to the nearest whole number.

- How many square miles does Cell Phone Tower Team Talk-A-Lot cover?
- How many square kilometers does Cell Phone Tower Team Reach-A-Lot cover?
- If 1 mile = 1.61 kilometers, which Cell Phone Tower covers the larger area?
- What is the scale factor of the circle for Cell Phone Tower Team Talk-A-Lot to the circle for Cell Phone Tower Team Reach-A-Lot?

[Area with Scale Factor and Conversions Problem Set 1 \(6:33\)](#)

Practice

7. A bakery in Washington D.C. sells a fabulous cake with a 22 - inch diameter. A bakery in New Mexico sells a fabulous cake with a diameter of 32.9 - centimeter diameter.
- What is the area of the cake from Washington D.C.?
 - What is the area of the cake from New Mexico?
 - If 1 in = 2.54 cm, which cake has a larger area?
 - What is the scale factor from the cake in Washington D.C. to the cake in New Mexico?

[Area with Scale Factor and Conversions Problem Set 2 \(8:57\)](#)