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| Name: | Class: | Date: |

8.3 The Area of a circle

So far, we have learned about a circle’s diameter, radius and the constant pi (\_\_\_\_\_\_\_\_\_\_\_.)

The circumference of a circle is calculated by these two formulae:

The area of a circle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The formula to calculate a circle’s area is:

|  |
| --- |
| What is the meaning of that \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_? 82 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_ 24 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_ |

Practice:

Expressing answers to the nearest hundredth, estimate and calculate the area of a circle with the following dimensions:

1. A radius of 7 meters

Estimate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Actual: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A radius of 9.5 meters

Estimate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Actual: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What if you’re only given the diameter?

Remember:

Example: calculate the area of a circle with a diameter of 6cm:

**Practice:** Round answers to the nearest tenth.

