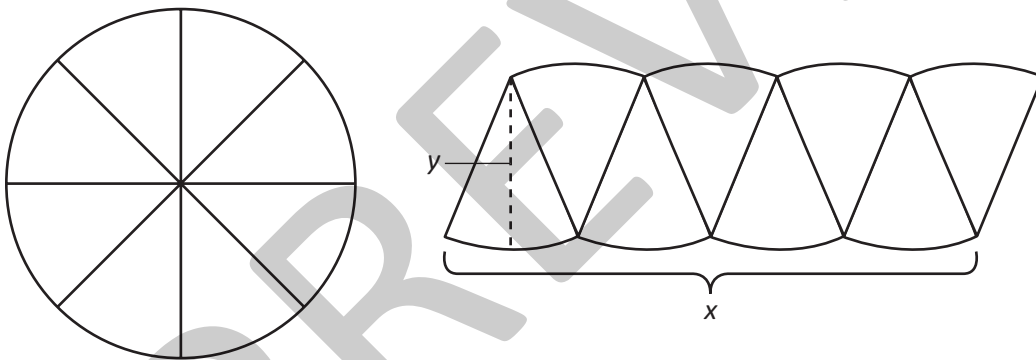


Quiz: HSG.GMD.A.1

1. Which of the following statements provide an informal argument for the formula for the circumference of a circle?

Select all that apply.

- A. A little more than 6 strings, each the length of the radius of a circle, are needed to go around the circle one complete time.
 - B. A little more than 3 strings, each the length of the diameter of a circle, are needed to go around the circle one complete time.
 - C. The diameter of a circle is twice the length of the radius of the circle.
 - D. A string having the length of the distance around a circle can be divided into 3 equal pieces with a little string left over. Each piece is the approximate length of the diameter of the circle.
 - E. The ratio of the circumference of a circle to the length of the radius of the circle is π .
2. One way to informally prove the formula for the area of a circle is to divide a circle into sectors and piece the sectors together as a parallelogram as shown below.



Complete the equation by writing the correct values for x and y .

$$\text{Area}_{\text{parallelogram}} = \text{base} \cdot \text{height}$$

$$\text{Area}_{\text{parallelogram}} = x \cdot y$$

$$x = \underline{\hspace{2cm}} \text{ and } y = \underline{\hspace{2cm}}$$

$$\text{Area}_{\text{parallelogram}} = \text{Area}_{\text{circle}} = \underline{\hspace{2cm}}$$

