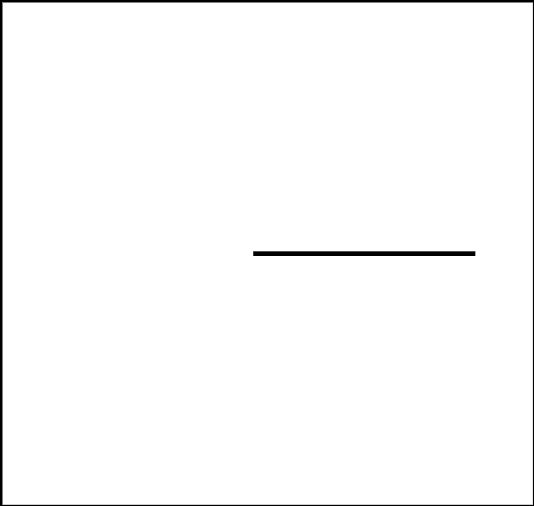
### Lesson 3 Practice Problems

1. is a circle with radius . Which of the following is true? Select **all** that apply.
   1. The diameter of is .
   2. The circumference of is .
   3. The circumference of is .
   4. One quarter of the circle has length .
   5. One quarter of the circle has length .

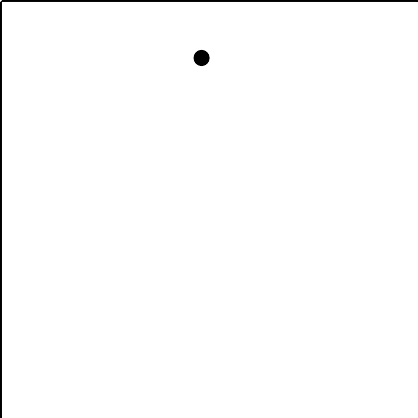
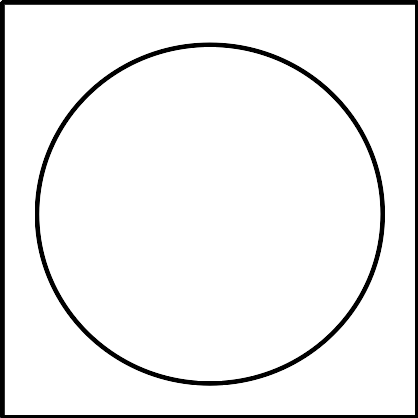
|  |  |
| --- | --- |
| 1. angle measure | 1. rotation |
| 1. 0 | 1. 0 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 1. 1 |

* The table shows an angle measure in radians and the amount of rotation about a circle corresponding to the angle. For example, radians corresponds to 1 full rotation. Complete the table.

1. A wheel has a radius of 1 foot. After the wheel has traveled a certain distance in the counterclockwise direction, the point has returned to its original position. How many feet could the wheel have traveled? Select **all** that apply.

* 

1. Here are some points labeled on the unit circle:

* 
  1. What is the measure in radians of angle ?
  2. Angle is halfway between 0 radians and angle . What is the measure in radians of angle ?
  3. Label point on the circle so that the measure of angle is .
  4. Label point on the circle so that the measure of angle is .
  5. Mark the points on the unit circle with -coordinate .
  + 
  1. What are the -coordinates of those points? Explain how you know.

1. The point lies on a circle centered at . Where does the circle intersect the -axis? Where does the circle intersect the -axis? Explain how you know.

* (From Unit 6, Lesson 1.)

1. Triangles and are similar. Explain why .

* 
* (From Unit 6, Lesson 2.)



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