

Just In Time Quick Check
Standard of Learning (SOL) 5.10

Strand: Measurement and Geometry

Standard of Learning (SOL) 5.10

The student will identify and describe the diameter, radius, chord, and circumference of a circle.

Grade Level Skills:

- Identify and describe the diameter, radius, chord, and circumference of a circle.
- Investigate and describe the relationship between:
 - diameter and radius
 - diameter and chord
 - radius and circumference
 - diameter and circumference.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [5.10 - Geometry: Human Circles](#) (Word) / [PDF Version](#)
- VDOE Algebra Readiness Remediation Plans
 - [Circle Parts](#) (Word) / [PDF](#)
- VDOE Word Wall Cards: Grade 4 ([Word](#)) | ([PDF](#))
 - Chord
 - Diameter
 - Radius
 - Circumference

Supporting and Prerequisite SOL: N/A

SOL 5.10 - Just in Time Quick Check

- 1) Use the Word Bank below to identify the parts of a circle when Point A is the center of the circle. Some blanks may have more than one answer.

circumference	chord	diameter	center	radius
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	<p>a) \overline{FG} _____</p> <p>b) \overline{AB} _____</p> <p>c) \overline{CD} _____</p> <p>d) \overline{CA} _____</p> <p>e) \overline{AD} _____</p> <p>f) The distance around the circle is the _____.</p>
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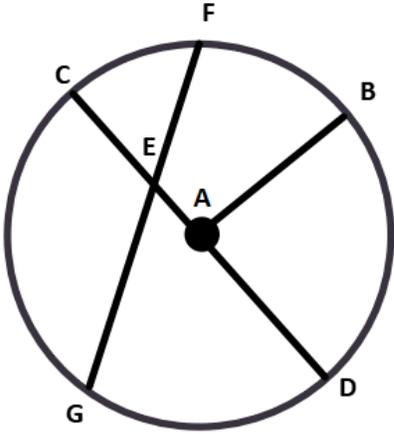
- 2) A diameter is also a chord. True or False. Explain your thinking.
- 3) A radius is also a chord. True or False. Explain your thinking.
- 4) If the diameter of a circle is 6 inches, the circumference is about _____. Explain how you determined the circumference.
- 5) If the radius of a circle is 2 inches, the diameter is _____. Explain how you determined the diameter.
- 6) If the diameter of a circle is 20 inches, the radius is _____. Explain how you determined the radius.

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Common Errors/Misconceptions and their Possible Indications

- 1) Use the Word Bank to identify the parts of the circle when Point A is the center of the circle. Some blanks may have more than one answer.

circumference	chord	diameter	center	radius
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	<p>a) \overline{FG} _____</p> <p>b) \overline{AB} _____</p> <p>c) \overline{CD} _____</p> <p>d) \overline{CA} _____</p> <p>e) \overline{AD} _____</p> <p>f) The distance around the circle starting with point C _____</p>
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Some students may have difficulty with this question if they are not familiar with circle vocabulary terms. Also, some students may be able to identify the parts of the circle but may have difficulty with the notation. Teachers may wish to have students label circles using notation, illustrations, and terms in a vocabulary journal. Teachers may post and reference Word Wall cards and anchor charts while working with circles.

- 2) A diameter is also a chord. True or False. Explain your thinking.

Some students may not recognize that the diameter can also be named a chord. Teachers may wish to have students compare and contrast the definitions of a diameter and a chord while exploring with manipulatives.

- 3) A radius is also a chord. True or False. Explain your thinking.

Some students may not recognize that a chord must have both endpoints on the edge of the circle. Teachers may wish to call special attention to this when creating an anchor chart and when having students work in their vocabulary journals.

- 4) If the diameter of a circle is 6 inches, the circumference is about _____. Explain how you determined the circumference.

Students may have difficulty understanding the relationship between the diameter and the circumference of a circle. Teachers may wish to have students create and explore the parts of a circle using Chenille stems, string, or bendable wax sticks. Teachers may wish to have students demonstrate that it takes about 3 diameter lengths to be equivalent to the circumference of the circle.

- 5) If the radius of a circle is 2 inches, the diameter is _____. Explain how you determined the diameter.

Students may have difficulty understanding the relationship between the radius and the diameter of a circle. Teachers may wish to have students measure the radius and diameter of various circles to discover the relationship between them. Teachers may wish to have students demonstrate that it takes 2 radii to be equivalent to the diameter and $\frac{1}{2}$ the diameter is equivalent to a radius.

- 6) If the diameter of a circle is 20 inches, the radius is _____. Explain how you determined the radius.

Students may have difficulty understanding the relationship between the diameter and the radius. Teachers may wish to have students use rulers to measure the diameter and radii, then discuss the relationship between the two terms.