

Just In Time Quick Check
Standard of Learning (SOL) 6.3c

Strand: Number and Number Sense

Standard of Learning (SOL) 6.3c

The student will identify and describe absolute value of integers.

Grade Level Skills:

- Identify and describe the absolute value of an integer.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [6.3c - Absolute Value of Integers](#) (Word) / [PDF Version](#)
- VDOE Algebra Readiness Formative Assessments
 - [SOL 6.3c](#) (Word) / [PDF](#)
- VDOE Algebra Readiness Remediation Plans
 - [Absolute Value](#) (Word) / [PDF](#)
- VDOE Word Wall Cards: [Grade 6](#) (Word) | ([PDF](#))
 - Absolute Value

Supporting and Prerequisite SOL: [6.3a](#)

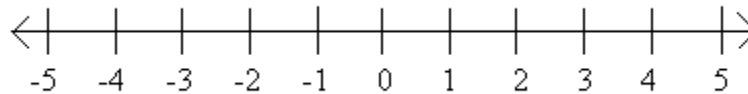
SOL 6.3c - Just in Time Quick Check

1. What is the value of $|-6|$? Explain using models, numbers, and words.

2. Do $|-4|$ and $|4|$ have the same value? Explain using the number line below.



3. Plot each point on the number line that represents a number with an absolute value of 3.



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Common Errors/Misconceptions and their Possible Indications

1. What is the value of $|-6|$? Explain using models, numbers, and words.

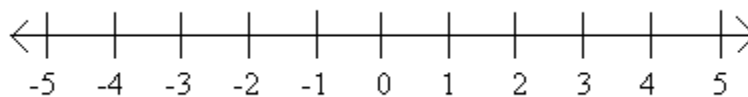
A common student error is not recognizing the absolute value symbol is an operation and stating the number inside the symbol as the answer. Some students perceive these as being parenthesis. These students may not have developed a recognition of the absolute value symbol or an understanding that absolute value describes the distance a number is from 0. Teachers may wish to provide these students with opportunities to explore integers using a number line; emphasizing that absolute value is the distance from 0. As students use number lines with integers, they may benefit from looking at pairs of numbers like $|-7|$ and $|7|$ to reinforce the concept that a positive and a negative number can have the same absolute value since absolute value represents the distance from 0.

2. Do $|-4|$ and $|4|$ have the same value? Explain using the number line below.



A common student misconception is that the absolute value of a number is the “opposite” of that number. For example, some students think the absolute value of 4 is -4, since -4 is the opposite of 4. Others think that it is -4 because to get to zero you move in a negative direction on the number line. Students would benefit from using number lines to model and represent the absolute value of 4 and -4. Have students think about and describe real life situations that will reinforce the concept that absolute value is always going to represent the distance from 0 and that distance is a positive number. For example, 6 feet above sea level and 6 feet below sea level both represent a distance of 6 feet although one is represented by 6 and the other -6.

3. Plot each point on the number line that represents a number with an absolute value of 3.



One common misconception for some students is to not understand the words “absolute value” mean the same thing as the symbolic notation $|\quad|$. Students would benefit from the visual cue of the Absolute Value Word Wall card to associate the words with the symbol. Another common error for some students is to plot a point on 3 and not plot a point on -3. These students would benefit from seeing points on a number line and thinking about how far the number is from zero. Providing students with examples of pairs of numbers will reinforce the concept that two different numbers can have the same absolute value.