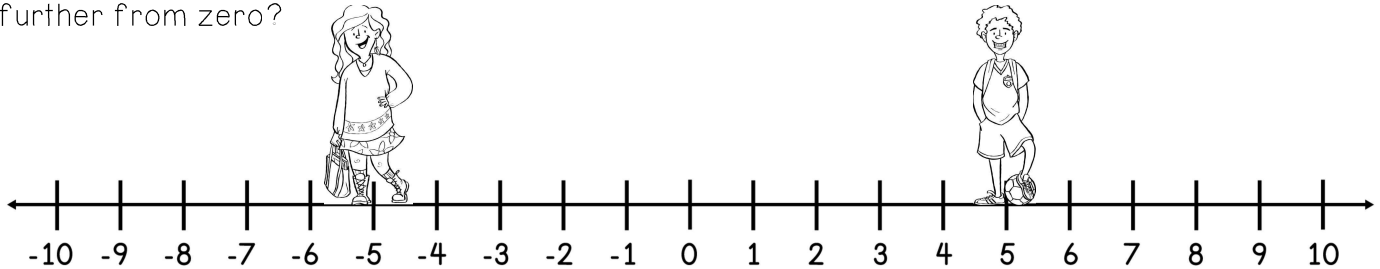


ABSOLUTE VALUE

A number line that extends from -10 to 10 is sketched out on the school parking lot. Kristine is standing on -5 and Andre is standing on 5. How far away from each other are they? Who is further from zero?

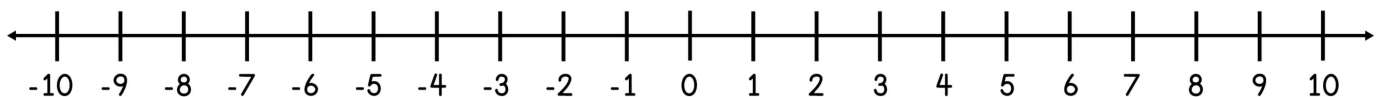
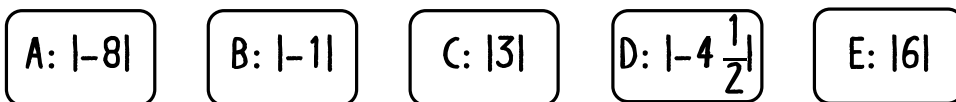


ABSOLUTE VALUE

The absolute value of a number is the _____ away from zero on the number line. It is always positive because it refers to distance.

- $|-5|$ is read _____
- Ex: $|-5| = \underline{\quad}$ $|5| = \underline{\quad}$

Use the number line below to plot points A-E.



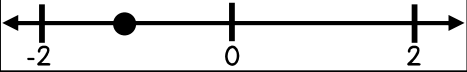
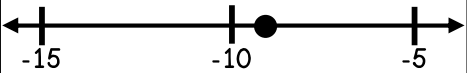
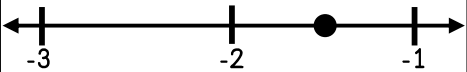
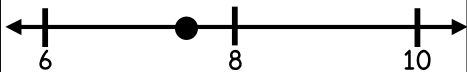
Use $<$, $>$, or $=$ to compare the values in questions 1-4. Then, write an integer to represent the situations in 5-6.

1. $ -4.9 \underline{\quad} -5 $	2. $ 10 \underline{\quad} -10.0 $	3. $ -36 \underline{\quad} -19 $	4. $ -9\frac{2}{3} \underline{\quad} 9 $
5. A football team loses 20 yards on a quarterback sack. Write an absolute value to represent the change in yards.		6. A submarine submerges and travels 120 feet below sea level. Write an absolute value to represent the change in depth.	

OPPOSITES

The opposite of a number is the same distance away from zero but always on the _____ of the number line. It can be either positive or negative.

7. Use your understanding of opposites and absolute value to complete the table below.

NUMBER LINE	NUMBER	ABSOLUTE VALUE	OPPOSITE
			
			
			
			

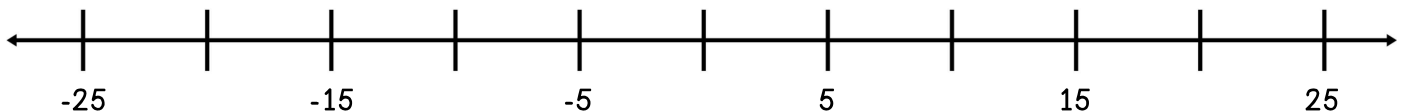
8. Several clues are given to describe various points on the number line below. Determine which number the clue is describing and mark the point on the number line.

A Point A is 10 away from zero and its opposite is -10.

B The opposite of point B is positive. Its absolute value is 15.

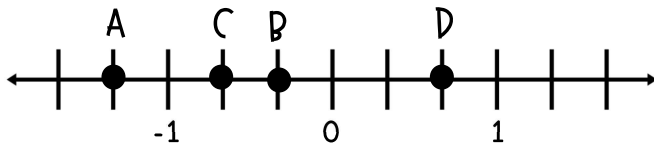
C Point C is 20 away from zero and its opposite is -20.

D The opposite of point D is negative. Its absolute value is 5.



Use your understanding of comparing integers to answer questions 9-10.

9. Nikki places four different numbers on a number line. What point best represents $|- \frac{2}{3}|$?



10. The magic number is -45. Mark each statement below as true or false.

_____ a. The opposite of the magic number is 45.

_____ b. -45 represents the absolute value of the magic number.

_____ c. The magic number is 45 units away from zero.

Summarize today's lesson: