

Absolute Value as Distance Between Two Numbers

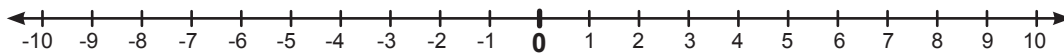
AV 3

Instructions: Plot the two numbers in these subtraction problems on the number line. Then show that the Absolute Value of the difference is the **distance** between the two numbers.

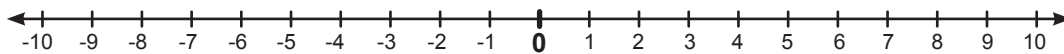
1 $|5 - -2| = 7$



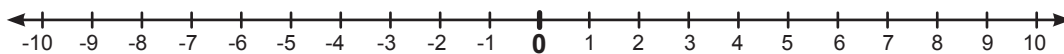
2 $|9 - 4| =$



3 $|-4 - -1| =$



4 $|-5 - 5| =$



Instructions: Prove that these equations are true.

1 $|8 - 2| = |2 - 8|$

$|6| = |-6|$

$6 = 6$

2 $|1 - 6| = |6 - 1|$

3 $|-2 - 1| = |1 - -2|$

4 $|-3 - -4| = |-4 - -3|$

Absolute Value Expressions - Set 1

AV 4

Instructions: Simplify these expressions involving Absolute Value. Remember not to confuse the Absolute Value signs with the parentheses.

1 $|-2| + (-3)$

$$2 - 3$$

$$\textcircled{-1}$$

2 $-|-2| \cdot 4$

$$-2 \cdot 4$$

$$\textcircled{-8}$$

3 $4 - |4|$

4 $|7| + |-3|$

5 $|-8| - |-5|$

6 $(-4) + |-10|$

7 $(-2) \cdot |-4|$

8 $(-1 + |-6|)$

9 $5 \cdot |1-3|$

10 $\frac{|8|}{|-2|}$

11 $9 + |-8|$

12 $-|-5| \cdot |-4|$

13 $|\frac{1}{2}| \cdot 12$

14 $|1-5| \cdot |5-8|$

15 $\frac{-|5|}{|-5|}$

Absolute Value Expressions - Set 2

AV 5

Instructions: Simplify these expressions involving Absolute Value. Remember not to confuse the Absolute Value signs with the parentheses.

1 $-|3| \cdot |-3|$

2 $12 + |4|$

3 $|-8| + (-6)$

4 $7 + |-7|$

5 $-|-1| \cdot |-9|$

6 $\frac{|15|}{|-5|}$

7 $|-2| - |-10|$

8 $-(-6) + |-1|$

9 $|5| - |-5|$

10 $|6-7| \cdot |8-4|$

11 $\frac{-|-6|}{|-2|}$

12 $|\frac{1}{4}| \cdot 4$

13 $(-2 + |-7|)$

14 $8 \cdot |1-4|$

15 $(-9) \cdot |-7|$