

NAME _____

Date _____ Period _____

Section 2.5

ALGEBRA

Absolute Value Word Problems: Practice A

1. A box must be within 0.1 inch of 5 feet. Which inequality represents all possible lengths of the box?

A) $|x - 0.1| \leq 5$

B) $|x - 0.1| \geq 5$

C) $|x - 5| \leq 0.1$

D) $|x - 5| \geq 0.1$

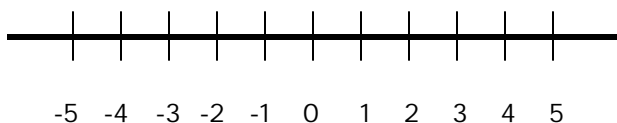
2. A bed must be within 1 feet of 9 feet. Write an absolute value inequality below that represents all possible lengths of a box.

3. Jim is recording songs onto a CD. Each song is 50 MB. He already recorded 220 MB of the 700 MB CD. How many more songs can he record onto the CD?

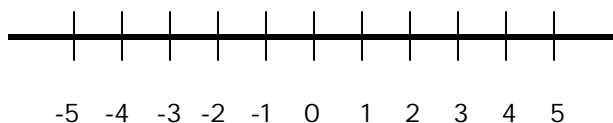
4. Bill is also recording songs onto a CD. He has already recorded 4 songs of 40 MB. If the CD can hold 650 MB, how many more 40 MB songs can Bill record?

Directions: Graph each absolute value equation or inequality on the number line below it.

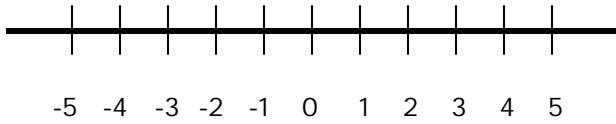
5. $|x - 1| < 2$



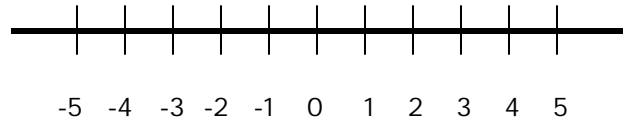
6. $|x - 3| \leq 2$



$$7. |x-1| = 4$$



$$8. |x-2| < 3$$



9. Which equation below represents all points exactly 2 units from 3?

A) $|x-2| = 3$

B) $|x+2| = -3$

C) $|x-3| = 2$

D) $|x+3| = 2$

10. Which equation below represents all points within 5 units from 6?

A) $|x-6| = -5$

B) $|x+5| = -6$

C) $|x-6| = 5$

D) $|x-5| = 6$

11. Which equation below represents all points within 10 units from 4?

A) $|x-10| = 4$

B) $|x+10| = -4$

C) $|x-4| = 10$

D) $|x+10| = 4$