

NAME: \_\_\_\_\_

*P.I. A2.A.1: Solve absolute value inequalities involving linear expressions in one variable*

Solve:

1.  $|x-2| \geq 1$

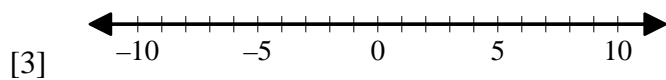
[1] \_\_\_\_\_

2.  $|x+4| \leq 2$

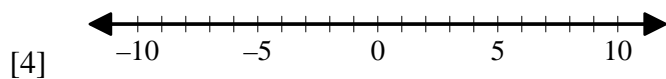
[2] \_\_\_\_\_

Graph:

3.  $|2x+1| > 3$



4.  $|2x+1| > 4$



Solve:

5.  $|x+5| > 4$

[5] \_\_\_\_\_

[A]  $-9 \leq x \leq -1$

[B]  $x \leq -9$  or  $x \geq -1$

[C]  $-9 < x < -1$

[D]  $x < -9$  or  $x > -1$

6.  $|x-3| < 9$

[A]  $x \leq -6$  or  $x \geq 12$

[B]  $-6 < x < 12$  [C]  $x < -6$  or  $x > 12$

[D]  $-6 \leq x \leq 12$

[6] \_\_\_\_\_

7.  $|2x-1| \leq 1$

[A]  $x < 0$  or  $x > 1$  [B]  $0 < x < 1$

[C]  $0 \leq x \leq 1$  [D]  $x \leq 0$  or  $x \geq 1$

[7] \_\_\_\_\_

8.  $|2x-1| \leq 2$

[A]  $-\frac{1}{2} \leq x \leq \frac{3}{2}$  [B]  $-\frac{1}{2} < x < \frac{3}{2}$

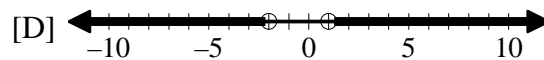
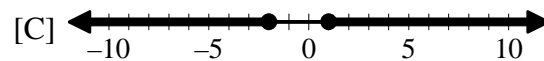
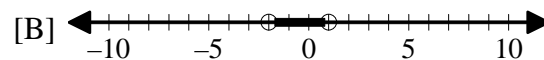
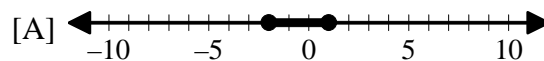
[C]  $x < -\frac{1}{2}$  or  $x > \frac{3}{2}$

[D]  $x \leq -\frac{1}{2}$  or  $x \geq \frac{3}{2}$

[8] \_\_\_\_\_

Graph:

9.  $|2x+1| \leq 3$

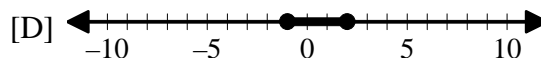
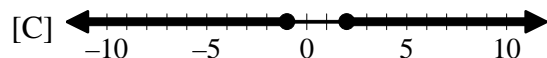
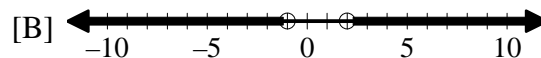
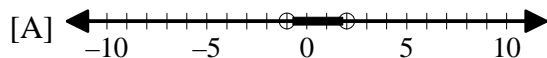


[9] \_\_\_\_\_

NAME: \_\_\_\_\_

Graph:

10.  $|2x - 1| \leq 3$



[10] \_\_\_\_\_

11. Compare the quantities in Column A and Column B.

Column A

Column B

the least number that is

the greatest number that is

a solution to  $|x| \leq 2$

a solution to  $|x| \geq 2$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

[D] The relationship cannot be determined from the information given.

[11] \_\_\_\_\_

12. Compare the quantities in Column A and Column B.

Column A

Column B

the least positive integer that is

the least positive integer that is

a solution to  $|2x| \geq -4$

a solution to  $|2x| \geq 4$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

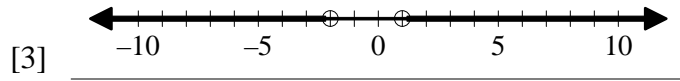
[D] The relationship cannot be determined from the information given.

[12] \_\_\_\_\_

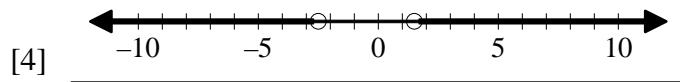
[1]  $x < 1$  or  $x > 3$  \_\_\_\_\_

[2]  $-6 \leq x \leq -2$  \_\_\_\_\_

$x < -2, \quad x > 1$



$x < -\frac{5}{2}, \quad x > \frac{3}{2}$



[5] D

[6] B

[7] C

[8] A

[9] A

[10] D

[11] B

[12] A