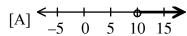
Algebra I Practice A.REI.B.3: Solving Linear Inequalities 1 www.jmap.org

1. Which graph shows the solution to x + 2 < 12?



[C]
$$\leftarrow 1 + 1 + \rightarrow \rightarrow \rightarrow \rightarrow -5 + 0 + 5 + 10 + 15$$

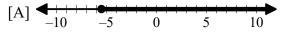
[D]
$$\leftarrow$$
 1 5 10 15

2. Which graph shows the solution of x+6 > 0?

$$[C] \xrightarrow{-12 - 9 - 6 - 3} \xrightarrow{0} \xrightarrow{3} \xrightarrow{6} \xrightarrow{9} \xrightarrow{12}$$

Graph:

3. 5x+5 > 3(x-2)



$$[C] \xrightarrow{-10} \xrightarrow{-5} \xrightarrow{0} \xrightarrow{5} \xrightarrow{10}$$

$$[D] \xrightarrow{-10} -5 \quad 0 \quad 5 \quad 10$$

4. 5x-1 < 3(x-2)

$$[A] \xrightarrow{-10} \xrightarrow{-5} \xrightarrow{0} \xrightarrow{5} \xrightarrow{10}$$

$$[B] \xrightarrow{-10} -5 \quad 0 \quad 5 \quad 10$$

$$[C] \xrightarrow{-10} \xrightarrow{-5} \xrightarrow{0} \xrightarrow{5} \xrightarrow{10}$$

$$[D] \xrightarrow{-10} -5 \quad 0 \quad 5 \quad 10$$

NAME:

5. 5x-2 > 3(x-1)



$$[C] \stackrel{\blacktriangleleft}{\underset{-10}{\longleftarrow}} \stackrel{+}{\underset{-5}{\longleftarrow}} \stackrel{-}{\underset{0}{\longleftarrow}} \stackrel{-}{\underset{$$

$$[D] \xrightarrow{-10} \xrightarrow{-5} \xrightarrow{0} \xrightarrow{5} \xrightarrow{10}$$

6. x < 2 or $x \le -5$

$$[A] \xrightarrow{-10} -5 \quad 0 \quad 5 \quad 10$$

$$[B] \xrightarrow{-10} -5 \qquad 0 \qquad 5 \qquad 10$$

7. x > 8 or $x \ge -4$

$$\begin{bmatrix} C \end{bmatrix} \xrightarrow{-10} \xrightarrow{-5} \xrightarrow{0} \xrightarrow{5} \xrightarrow{10}$$

$$[D] \stackrel{\blacktriangleleft}{\underset{-10}{\longleftarrow}} \stackrel{\bullet}{\underset{-5}{\longrightarrow}} \stackrel{\bullet}{\underset{0}{\longrightarrow}} \stackrel{\bullet}{\underset{5}{\longrightarrow}} \stackrel{\bullet}{\underset{10}{\longrightarrow}}$$

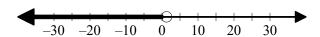
8. x < -8 or $x \le -4$

$$[B] \xrightarrow{-10} -5 \quad 0 \quad 5 \quad 10$$

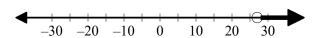
[C]
$$\begin{array}{c} -10 & -5 & 0 & 5 & 10 \\ \end{array}$$

9. Solve the inequality and graph the solution on a number line. $\frac{2}{9}x > 6$

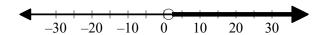
[A] x < 1.3



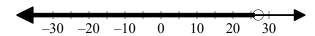
[B] x > 27



[C] x > 1.3

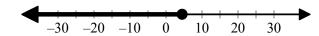


[D] x < 27

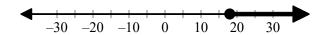


10. Solve the inequality and graph the solution on a number line. $\frac{1}{2}x \le 9$

[A] $x \le 4.5$



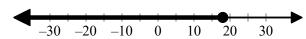
[B] $x \ge 18$



[C] $x \ge 4.5$

$$-30$$
 -20 -10 0 10 20 30

[D] $x \le 18$



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- [1] B
- [2] D
- [3] D
- [4] <u>A</u>
- [5] B
- [6] <u>B</u>
- [7] <u>A</u>
- [8] <u>C</u>
- [9] <u>B</u>
- [10] <u>D</u>