

2-4 D1 Notes

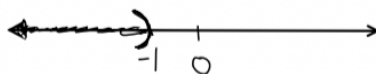
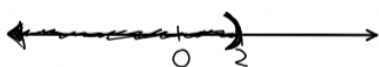
Friday, November 3, 2023 7:38 AM

Solve. Graph each answer using interval notation.

$$\begin{array}{r} 10. \quad 3x + 2 < 8 \\ \quad \quad \underline{-2 \quad -2} \\ \quad \quad 3x < 6 \\ \quad \quad \underline{\quad \quad 3} \\ \quad \quad x < 2 \end{array}$$

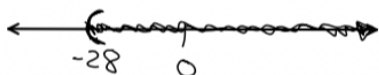
$$\begin{array}{r} 18. \quad 2 - 5x > 7 \\ \quad \quad \underline{-2 \quad -2} \\ \quad \quad -5x > 5 \\ \quad \quad \underline{\quad \quad -5} \\ \quad \quad x < -1 \end{array}$$

When multiplying or dividing by a negative, switch the inequality



$$32. \quad \left(\frac{7}{12}x - \frac{3}{2} < \frac{2}{3}x + \frac{5}{6} \right) (12)$$

$$\begin{array}{r} 7x - 18 < 8x + 10 \\ \underline{-7x \quad -10 \quad -7x \quad -10} \\ -28 < x \end{array}$$



Solve. Define the variable, translate into an equation, then answer the question.

82. Five times the difference between a number and two is greater than the quotient of two times the number and three. Find the smallest integer that will satisfy the inequality.

No decimal
No Fractions

Let $x = \text{number}$

$$5(x - 2) > \frac{2x}{3}$$

$$3(5x - 10) > \frac{2x}{3} (3)$$

$$\begin{array}{r} 15x - 30 > 2x \\ \underline{-15x \quad -15x} \end{array}$$

$$\begin{array}{r} -30 > -13x \\ \underline{-13 \quad -13} \end{array} \rightarrow 2.307 < x$$

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