

Solve each equation for the unknown value. Check your solution.

1) $3x - 2 = -17$

2) $4(x - 3) = -24$

3) $\frac{2}{5}x - \frac{1}{4} = \frac{3}{4}$

4) $\frac{x}{4} + 2 = 5$

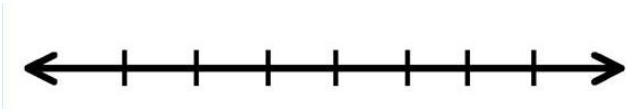
Simplify each expression.

5) $3x + 4 - 5x - 8$

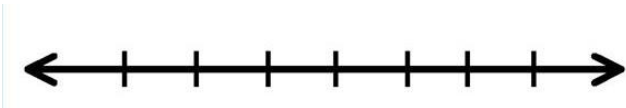
6) $-2\left(\frac{1}{2}x - 4\right) + 3x$

7) $2xy + 3x - 4xy - 8x$

8) Graph the following inequality on the number line: $x < 3$.



9) Graph the following inequality on the number line: $x \geq -4$.



10) Explain when you would use an open dot and when you would use a closed dot when graphing an inequality.