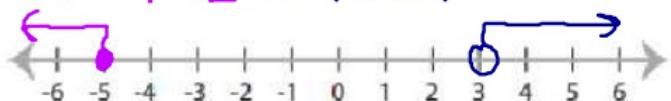


Solve the compound inequality, graph the solution and then write the solution in interval notation

$$1. x + 2 \leq -3 \text{ or } x - 5 > -2$$

$$\frac{-2}{x \leq -5} \text{ or } \frac{+5}{x > 3}$$

$$(-\infty, -5] \cup (3, \infty)$$



$$2. \frac{x}{4} \geq 8 \text{ or } x - 16 \leq 10$$

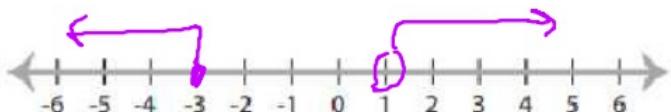
$$\frac{+16}{x \geq 32} \quad \frac{+16}{x \leq 26}$$

$$(-\infty, 26] \cup [32, \infty)$$



$$3. x + 5 > 6 \text{ or } -6x \geq 18$$

$$\frac{-5}{x > 1} \quad \frac{-6}{x \leq -3}$$

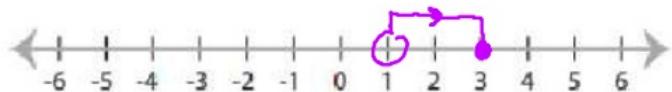


$$(-\infty, -3] \cup (1, \infty)$$

Solve the compound inequality, graph the solution and then write the solution in interval notation

$$1. \begin{aligned} x + 5 &> 6 & 6x &\leq 18 \\ -5 &-5 & \frac{6}{6} &= \frac{18}{6} \\ x &> 1 & x &\leq 3 \end{aligned}$$

$$(1, 3]$$

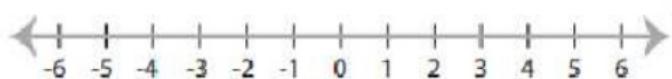


$$2. \begin{aligned} -15 &\leq x - 13 \leq 0 \\ +13 &+13 +13 \\ -2 &\leq x \leq 13 \end{aligned}$$

$$\left\{ \begin{array}{l} -15 \leq x - 13 \text{ and } x - 13 \leq 0 \\ +13 +13 +13 \\ -2 \leq x \end{array} \right. \quad \left. \begin{array}{l} x - 13 \leq 0 \\ +13 +13 \\ x \leq 13 \end{array} \right.$$



$$[-2, 13]$$

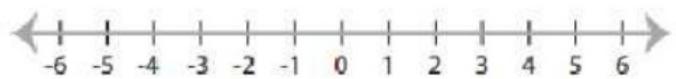


$$3. \frac{x+6}{3} < -9 \quad (3)$$

$$-33 < x < -27$$



$(-33, -27)$



$$4. \frac{-14 < -11 + x \leq -12}{+11 \quad +11 \quad +11}$$

$$\underline{-3 < x \leq -1}$$

$\downarrow$

$$(-3, -1)$$

