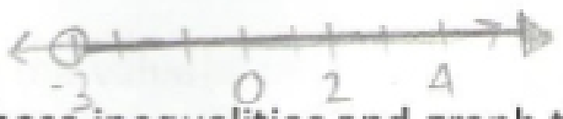
Graphing Inequalities:

Graph linear inequalities on a number line.

A closed interval contain the value and is shown as ≤ or ≥ in the inequality, [or] in the interval notation, and a solid circle on the graph.

A open interval does not contain the value and is shown as < or > in the inequality, (or) in the interval notation, and a hollow circle on the graph.

Graph $x > -3$



Graph $x \leq 2$

Solve these inequalities and graph the solutions:

$7x + 4 \leq 2(x - 1)$

$7x+4 \leq 2x-2$

$5x \leq -6$

$x \leq \frac{-6}{5}$

$12\left(\frac{4x}{3} - 3 > \frac{1}{2} + \frac{5x}{12}\right)$

$16x-36>6+5x$

$11x>42$

$x>\frac{42}{11}$

$-2 \leq x < 4$ is an example of a compound inequality corresponding to the interval $[-2, 4]$ and the graph