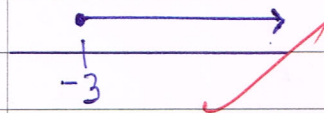


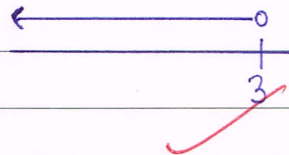
Question 1

Solve each of the following inequalities on a number line.

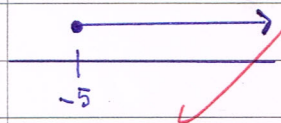
a) $x \geq -3$



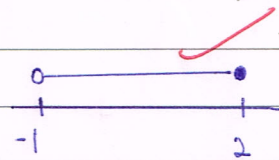
b) $x < 3$



c) $x \geq -5$



d) $-1 < x \leq 2$



Question 2

Solve the following inequalities

a) $-4x + 8 > 10$

~~$-4x + 8 - 8 > 10 - 8$~~

~~$-4x > 10 - 8$~~
 $\frac{-4x}{-4} > \frac{10 - 8}{-4}$

~~$x < \frac{21}{-4}$~~

~~$x < -\frac{1}{2}$~~

b) $-6 + 3x \leq x$

~~$-6 + 3x - 3x \leq x - 3x$~~

~~$-6 \leq x - 3x$~~

~~$-6 \leq -2x$~~
 $\frac{-6}{-2} \leq \frac{-2x}{-2}$

~~$3 \leq x$~~

~~$x \leq 3$~~

Checked 2/6/18

Question 3

Solve and show all integers on a number line for x which satisfy the inequality below.

$-5(2x + 2(-3x + 2)) \geq 4$

$-5(2x + 2(-3x + 2)) \geq 4$

$-5(2x - 6x + 4) \geq 4$

$-10x + 30x - 20 \geq 4$

$20x - 20 \geq 4$

$20x - 20 + 20 \geq 4 + 20$

$20x \geq 24$ ~~$x \geq 6$~~