W-A1 Algebra 1 1/5

1.) $6 - 5r - 8 < -22$

$-5r - 2 < -22$

$+2 \quad +2$

$\frac{-5r}{-5} < \frac{-20}{-5}$

$r > 4$

2.) $-7x + 5 - 3x \leq -5$

$-10x + 5 \leq -5$

$-5 \quad -5$

$\frac{-10x}{-10} \leq \frac{-10}{-10}$

$x \geq 1$

3.) $4 - 4r \geq -10 - 6r$

$+6r \quad +6r$

$4 + 2r \geq -10$

$-4 \quad -4$

$\frac{2r}{2} \geq \frac{-14}{2}$

$r \geq -7$

4.) $-1 + 6n > -11 + n$

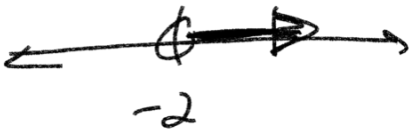
$-n \quad -n$

$-1 + 5n > -11$

$+1 \quad +1$

$\frac{5n}{5} > \frac{-10}{5}$

$n > -2$



1.) $8(1-5n) \leq -112$

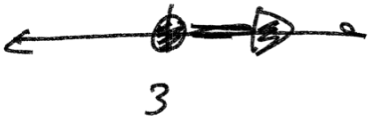
$8 - 40n \leq -112$

$-8 \quad\quad -8$

$-40n \leq -120$

$\frac{-40n}{-40} \leq \frac{-120}{-40}$

$n \geq 3$



2.) $2n - 29 \leq -(6n+8) + 5n$

$\Rightarrow 2n - 29 \leq -6n - 8 + 5n$

$2n - 29 \leq -n - 8$

$+29 \quad\quad +29$

$2n \leq -n + 21$

$+n \quad\quad +n$

$\frac{3n}{3} \leq \frac{21}{3}$

$n \leq 7$

compound inequalities

$b + 9 < 3$

$-9 \quad -9$

$b < -6$

or $3\left(\frac{b}{3}\right) > (0)3$

$b > 0$

divergent

$m - 9 \leq -5$

$+9 \quad +9$

$m \leq 4$

and $7\left(\frac{m}{7}\right) \geq (0)7$

$m \geq 0$

convergent