UNIT 2 DAY 20 HOMEWORK

NAME: Key

Solve the inequality, graph, then write the final solution in inequality notation AND interval notation.

1. $9 \le x - 3 < 10$

$+3 \quad +3 \quad +3$

$12 \le x < 13$

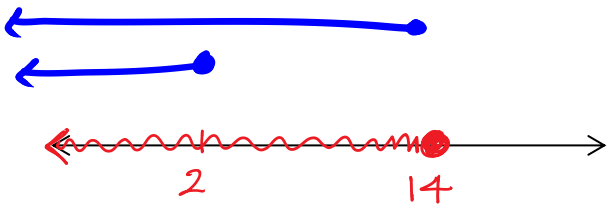
Inequality Notation: $12 \le x < 13$

Interval Notation: $[12, 13)$

2. $x - 5 \le 9$ OR $\frac{5x}{5} \le \frac{10}{5}$

$+5 \quad +5$

$x \le 14$ or $x \le 2$



Inequality Notation: $x \le 14$

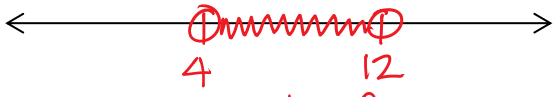
Interval Notation: $(-\infty, 14]$

3. $\frac{-4}{2} < \frac{2(f-6)}{2} < \frac{12}{2}$

$-2 < f - 6 < 6$

$+6 \quad +6 \quad +6$

$4 < f < 12$



Inequality Notation: $4 < f < 12$

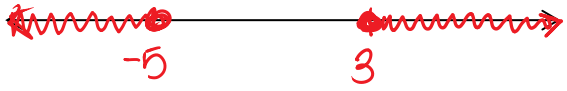
Interval Notation: $(4, 12)$

4. $2m - 1 \ge 5$ OR $\frac{-5m}{-5} \ge \frac{25}{-5}$

$+1 \quad +1$

$\frac{2m}{2} \ge \frac{6}{2} \qquad m \le -5$

$m \ge 3$ or $m \le -5$



Inequality Notation: $m \ge 3$ OR $m \le -5$

Interval Notation: $(-\infty, -5] \cup [3, \infty)$

Write the verbal sentence as an inequality. Then solve the inequality and graph your solution.

5. x is less than 12.

$x < 12$

6. x is greater than or equal to - 8 and less than -2.

$-8 \le x < -2$