

**Please show all work clearly.**

1. Solve each compound inequality. Express the solution using interval notation or state that there is no solution. **(2 points each)**

(a)  $\frac{n-1}{3} \geq 1$  and  $\frac{4n-2}{2} \leq 5$

(b)  $2x + 1 \leq 5$  or  $3y - 5 > 4$

2. Solve each inequality. Express each solution using interval notation. **(2 points each)**

(a)  $|5x + 3| \leq -3$

(b)  $\left| \frac{3x-7}{2} \right| + 5 \geq 9$

3. Solve the polynomial inequality. Express your solution using interval notation. **(2 points)**

$$x^3 \leq -2x^2 - x$$