

## Group Exercises

1. Solve the equation for  $x$ :

(a)  $\left| \frac{2x-1}{x+1} \right| = 3$

(b)  $|x+3| = |2x+1|$

2. Solve the inequality  $x$ :

(a)  $1 < 4 - 2x \leq 5$

(b)  $x^3 + 3x < 4x^2$

(c)  $\frac{(x-1)(x+2)}{(x+1)} \geq 0$

3. Find an equation of the line that satisfies the given condition:

(a) Through  $(2, -3)$  perpendicular to  $2x + 5y + 8 = 0$

(b) Through  $(2, -3)$  parallel to the  $y$ -axis.

(c) Through  $(-3, -5)$  with a slope of 6

(d) Perpendicular to the previous line, through  $(1, 1)$ .