MATH 125 College Algebra Blitzer 7th Edition Name:_____

Section 1.7 Linear Inequalities and Absolute Value Inequalities Professor Anna Cox

Express $(1,6]$ in set-builder notation and graph.

Express $[-3,\infty)$ in set-builder notation and graph.

Use graphs to find each set:

$(-3, 0) \cap [-1, 2]$

$(-3, 0) \cup [-1, 2]$

Solve and graph:

$-9x \geq 36$

$\frac{x}{4} - \frac{3}{2} \leq \frac{x}{2} + 1$

An elevator at a construction site has a maximum capacity of 3000 pounds. If the elevator operator weighs 245 pounds and each cement bag weighs 95 pounds, how many bags of cement can be safely lifted on the elevator in one trip?

Solve the inequality:

$4(3x - 2) - 3x < 3(1 + 3x) - 7$

$5(x - 2) - 3(x + 4) \geq 2x - 20$

$-11 < 2x - 1 \leq -5$

$|2x - 6| < 8$

$|2(x - 1) + 4| \leq 8$

$1 < |2 - 3x|$