

Names:

Section 2.7

1. Write the inequalities in interval notation and using the number line.

(a)  $-3 < x \leq 7$

(b)  $x > -7$

2. Solve the following inequalities and write the solution in interval notation and using the number line.

(a)  $4x - 3 \geq 8x + 6$

(b)  $-7x + 3 \leq -4$

(c)  $3(2x - 5) + 7(x + 4) < 5(7 - x) + 13$

(d)  $\frac{4}{5}(x + 3) > \frac{2}{3}(4 - x)$

(e)  $8 \leq 3(2 - 5x) < 16$

3. A family is going to drive 250 miles in two cars. The first car leaves home at 10:00 AM and drives at 60 miles per hour. The second car leaves at 10:30 AM. How fast does the second car need to travel in order to arrive at the destination first?