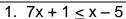## Solving Inequalities with Variables on Both Sides

Solve each of the following inequalities and graph the solution.

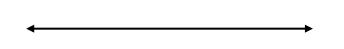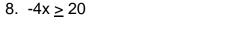|	
1. $7x + 1 \leq x - 5$	2. $-3x < 10 - x$
3. $4x > 3(7 - x)$	4. $5(4 + x) < 3(2 + x)$
5. $-4(3 - x) > 5(x + 1)$	6. $-5(x + 3) - 6 < x + 3$

REVIEW FOR YOUR QUIZ TOMORROW!!! Solve each inequality and graph the solution.
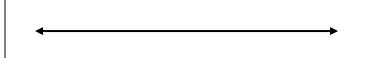
7. x + 6 < -2	8. -4x ≥ 20
$\longleftrightarrow$	$\longleftrightarrow$
9. $\frac{3}{5}$x > -12	10. x + 6 – 2x > 2(x – 3)
$\longleftrightarrow$	$\longleftrightarrow$

Write an inequality and solve.

11. The average of Dion's two test scores must be at least a 90 to make an A in the class. Dion got a 89 on his first test. What grade can Dion get on his second test to make an A in the class?
12. Liz has $17.00 to spend on a girl's night out with her friends. She plans to spend $6.50 on a movie ticket. How much money does Liz have left to spend on her dinner?
Answers in random order: x ≤ -1, x < -17, x > -5, x > 3, x > -4, x < -7, x > -20,   x < 4, x ≤ -5, x < -8, x ≥ 91, x ≤ 10.50