

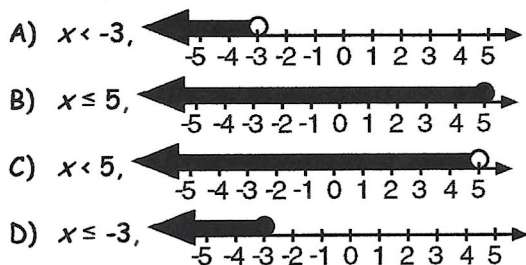
Name: \_\_\_\_\_  
Mrs. Roumbos

Date: \_\_\_\_\_  
8A Period \_\_\_\_\_

Inequalities Homework

- 1) What is the solution to the inequality  $7x - 26 > 3(3x - 2)$ ?
- A)  $x < -10$                       C)  $x < -16$   
B)  $x > -16$                       D)  $x > -10$

- 2) Which of the following represents the solution set and graph for the inequality  $2x - 8 \leq 2$ ?



- 3) How many of the following numbers are solutions to  $3x - 7 < 35$ ?

-15, -14, 13, 14, 15

- A) 1                      B) 2                      C) 3                      D) 4

- 4) Solve and graph the solution set for the given inequality in the domain of the set of real numbers:

$5x + 4 > 11 - 2x$

- 5) Misha needs to rent a car. He finds a rental agency that will rent him a car for \$150 a week plus charge \$0.25 a mile. If Misha can spend *at most* \$300, how many miles can he drive in one week?

please do LISC on the back

- 6) Lucas wants to buy some amusement ride tickets that sell for \$1.35 each. If he also wants to buy a soda for \$1.50, what is the most number of tickets he can buy if he only has \$23.00 in his pocket?

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- 7) A doughnut shop charges \$0.70 for each doughnut and \$0.30 for a carryout box. Shirley has \$5.00 to spend. She needs to determine the *most* doughnuts ( $x$ ) she can buy when she only puts them in one carryout box.

What is an equation that can be used to answer the given problem?

- A)  $30x + 70 < 500$                       C)  $70x + 30 < 500$   
B)  $70x + 30 \leq 500$                       D)  $30x + 70 \leq 500$

- 8) Andrea has a sum of money in a savings account. If she withdraws \$150, she still has *at least* \$525 in her savings account. Which inequality can be used to find the minimum amount of money in the account?

- A)  $x + 150 \leq 525$                       C)  $x + 150 \geq 525$   
B)  $x - 150 \leq 525$                       D)  $x - 150 \geq 525$