

WRITING AND SOLVING INEQUALITIES – DAY 2



What inequality could be used to represent all the values of x for $y \leq -2(2x - 9) - 6$ when $y = 52$?

- A. $x \geq -10$
- B. $x \geq -16$
- C. $x \leq -10$
- D. $x \leq -16$

EXAMPLES: Solve each inequality and graph the solution.

1. $-4m - 3 < 2m + 6$

2. $2(k - 3) \leq 6 + 3k - 3$



Answer the following.

3. Tammy is planting tomato and pepper plants in her garden. Each tomato plant requires 6 square feet of space and each pepper plant requires 4 square feet of space. Tammy's garden has an area of 150 square feet. If t represents the number of tomato plants and p represents the number of pepper plants, which inequality represents the number of each plant she can grow in her garden?

- A. $4t + 6p \leq 150$
- B. $4t + 6p > 150$
- C. $6t + 4p \leq 150$
- D. $6t + 4p > 150$

4. Baseball fans can buy tickets for seats in the lower deck or upper deck of the stadium. Tickets for the lower deck cost \$42 each. Ticket prices for the upper deck are 75% of the cost of tickets for the lower deck. Which inequality represents all possible combinations of x , the number of tickets for the lower deck, and y , the number of tickets for the upper deck, that someone can buy for no more than \$800?

A. $42x + 56y \leq 800$

C. $42x + 56y > 800$

B. $42x + 31.5y \leq 800$

D. $42x + 31.5y > 800$

EXAMPLES: Write an inequality and solve.

5. The *Houston Chronicle* charges a fee of \$650 plus \$80 per week to run an ad. The *Bryan-College Station Eagle* charges \$145 per week. For how many weeks will the total cost at The *Houston Chronicle* be less than the cost at The *Bryan-College Station Eagle*?

Inequality: _____

6. When you rent a car from Car-Rent-A-Center, there are 2 payment options. You can pay \$25 a day plus 15¢ a mile (option A) or you can pay \$10 a day plus 40¢ a mile (option B). For what amount of daily miles will option A be the cheaper plan?

Inequality: _____