



APPLICATIONS OF INEQUALITIES

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

Answer the following. Show all work.

1. The Home Cleaning Company charges \$312 to power-wash the siding of a house plus \$12 for each window. Power Clean charges \$36 per window, and the price includes power-washing the siding. How many windows must a house have to make the total cost from The Home Cleaning Company less expensive than Power Clean?

2. Tammy is planting tomato and pepper plants in her garden. Each tomato plant t requires 6 square feet of space and each pepper plant p requires 4 square feet of space. Tammy's garden has an area of 150 square feet. Which inequality represents this situation?

A. $4t + 6p \leq 150$ C. $6t + 4p \leq 150$

B. $4t + 6p > 150$ D. $6t + 4p > 150$

3. Mel works as a waiter. He uses the linear expression $4x + 5$ to calculate his hourly earnings, in dollars, based on the number of tables, x , that he serves. What is the fewest number of tables he must serve per hour in order to earn more than \$25 per hour?

A. 4 C. 6

B. 5 D. 7