

## Inequalities that Describe Patterns Quiz Answer Key

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1. Find the inequality that matches this description: "The maximum room occupancy is 150."

- a)  $y > 150$
- b)  $y < 150$
- c)  $y \geq 150$
- d)  $y \leq 150$

2. The ticket price to the zoo is \$8 per person. Your budget is \$50. Write an inequality that will help you determine the appropriate number of people to bring to the zoo.

- a)  $x + \$8 \leq \$50$
- b)  $\$8x \leq \$50$
- c)  $\$50 - \$8x < 0$
- d) None of the above

3.  $x = 9$  can be part of the solution to this inequality:  $3x < 25$

- a) *True*
- b) *False*

4. Apples cost \$1.56 per pound. How many pounds of apples can be purchased for less than \$6? Find the inequality that matches this situation.

- a)  $\$6 - 1.56p < 0$
- b)  $\$1.56p < \$6$
- c)  $\$1.56p > \$6$
- d) None of the above

5. Which of the following choices is not part of the solution to this inequality?  $5x + 1 < 15$

- a)  $x = 0$
- b)  $x = 1$
- c)  $x = 2$
- d)  $x = 3$

6. The fundraiser is selling pancakes to raise funds. Ticket price is \$5 per person. How many tickets do they need to sell to raise at least \$250? Determine the inequality that matches this situation.

a)  $p + \$5 \geq \$250$

b)  $\$5p \leq \$250$

c)  $\$5p \geq \$250$

d)  $p + \$5 \leq \$250$

7. Which of the following choices is part of the solution to this inequality?  $2y + 15 > 45$

a)  $y = 11$

b)  $y = 15$

c)  $y = 18$

d) None of the above

8. Determine the inequality that matches this verbal expression:  
*Twice the value of x plus 5 is less than 20.*

a)  $2x + 5 > 20$

b)  $2x + 5 < 20$

c)  $20 < 5x + 2$

d)  $2(x + 5) < 20$

9. *15 minus three times a number is at most 45.* Which of the following inequalities matches this verbal expression?

a)  $15 - 3x \leq 45$

b)  $15 - 3x \geq 45$

c)  $15 - 3x < 45$

d)  $15 - 3x > 45$

10. Betty was given \$250 to purchase lunch for the company meeting. There are 40 people that will need lunch for the meeting. Which of the following inequalities will help Betty determine the amount of food to order to stay within the budget?

a)  $40p \leq \$250$

b)  $\$250 - 40p < 0$

c)  $40 + \$250 > p$

d) None of the above

