

Applications with Inequalities Quiz Answer Key

1. Determine the correct inequality for this situation: *The maximum allowed occupancy in a hotel room is 6 people.*

- a) $p > 6$
- b) $p < 6$
- c) $p \leq 6$**
- d) $p \geq 6$

2. Sarah is allowed to spend no more than \$700 for lunch expenditure for company board meetings this week. Which of the following is the correct inequality?

- a) $e > \$700$
- b) $e < \$700$
- c) $e \leq \$700$**
- d) $e \geq \$700$

3. John needs to save more than \$6,500 to renovate his master bedroom. Which of the following inequalities matches the situation?

- a) $s > \$6,500$**
- b) $s < \$6,500$
- c) $s \leq \$6,500$
- d) $s \geq \$6,500$

4. The width of a rectangle plot is 12 feet. The area is greater than 89 square feet. Determine the inequality to match this situation.

- a) $2(12) + 2l > 89$**
- b) $2(12) + 2l < 89$
- c) $2l < 65$
- d) None of the above

5. Vivian wants to spend \$75 or less on groceries. She already spent \$37. How much more can she spend?

- a) She can spend at most \$38**

- b) *She can spend more than \$38*
- c) *She can spend at least \$38*
- d) *None of the above*

6. Jill is selling cookie boxes for The Girl Scouts. She wants to meet her goal of \$750 or more. Each cookie box is sold for \$5.50. What is the minimum number of cookie boxes Jill must sell to meet her goal?

- a) *135 boxes*
- b) *136 boxes*
- c) *137 boxes*
- d) *None of the above*

7. Tom's wrestling goal is to be under 140 pounds. Find the inequality that matches this situation.

- a) *$w > 140$ pounds*
- b) *$w < 140$ pounds*
- c) *$w \geq 140$ pounds*
- d) *$w \leq 140$ pounds*

8. Thelma is driving to Los Angeles from San Jose. She has to drive at least 350 miles to arrive at her destination. She drove 110 miles for the first two hours. Determine the inequality that matches this situation.

- a) *$d + 110 < 350$*
- b) *$d > 460$*
- c) *$d + 110 \geq 350$*
- d) *$d - 110 \geq 350$*

9. Lisa's goal is to raise at least \$25,000 for The Cure for Cancer extravaganza in February. Write the inequality that matches this situation.

- a) *$f > \$25,000$*
- b) *$f < \$25,000$*
- c) *$f \leq \$25,000$*

d) $f \geq \$25,000$

10. The company is willing to budget at least \$40,000 but no more than \$50,000 training for their employees. There are 250 employees on site. Find the inequality that matches the amount the company is willing to spend for each employee.

a) $\$160 \leq p \leq \300

b) $p \leq \$100$ or $p \geq \$250$

c) $\$160 \leq p \leq \200

d) None of the above