Name _____ Date _____ Class _____

LESSON 3-3

Problem Solving

Solving Inequalities by Multiplying or Dividing

Write and solve an inequality for each situation.

1. Karin has $3 to spend in the arcade. The game she likes costs 50¢ per play. What are the possible numbers of times that she can play?

_____

_____

2. Tyrone has $21 and wants to buy juice drinks for his soccer team. There are 15 players on his team. How much can each drink cost so that Tyrone can buy one drink for each person?

_____

_____

3. A swimming pool is 7 feet deep and is being filled at the rate of 2.5 feet per hour. How long can the pool be left unattended without the water overflowing?

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_____

4. Megan is making quilts that require 11 feet of cloth each. She has 50 feet of cloth. What are the possible numbers of quilts that she can make?

_____

_____

Alyssa, Reggie, and Cassie are meeting some friends at the movies and have stopped at the refreshment stand. The table below shows some of the items for sale and their prices. Use this information to answer questions 5–7.

Menu Item	Price ($)
Popcorn	3.50
Drink	3.00
Hot Dog	2.50
Nachos	2.50
Fruit Snack	2.00

5. Alyssa has $7 and would like to buy fruit snacks for as many of her friends as possible. Which inequality below can be solved to find the number of fruit snacks f she can buy?

A $2f \leq 7$ **C** $7f \leq 2$

B $2f < 7$ **D** $7f < 2$

6. Reggie brought $13 and is going to buy popcorn for the group. Which answer below shows the possible numbers of popcorns p Reggie can buy for his friends?

F 0, 1, or 2 **H** 0, 1, 2, 3, or 4

G 0, 1, 2, or 3 **J** 0, 1, 2, 3, 4, or 5

7. The movie theater donates 12% of its sales to charity. From Cassie's purchases, the theater will donate at least $2.15. Which inequality below shows the amount of money m that Cassie spent at the refreshment stand?

A $m \geq 17.92$ **C** $m \geq 25.80$

B $m \leq 17.92$ **D** $m \leq 25.80$