**Foundations of Algebra Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 6 Day 13 Practice Date: \_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_**

1. Which function has the greater slope? Which function has the greater y-intercept?



2. For the following two functions, write the equations of each and complete the chart using <, >, or = to compare them.

|  |  |
| --- | --- |
| **x** | **f(x)** |
| -3 | 11 |
| -1 | 7 |
| 1 | 3 |
| 3 | -1 |
| 5 | -5 |

![[image]]() **f(x) = g(x) =**



|  |  |
| --- | --- |
| **x** | **f(x)** |
| 0 | 4 |
| 1 | 8 |
| 2 | 12 |
| 3 | 16 |
| 4 | 20 |

3. You and a friend are trying to decide which theater to go to for a Friday night movie. NCG charges $7 for the movie ticket and $3 per food item. Regal’s prices are represented by the table.

a. Write an equation for NCG and Regal. Compare their slopes and initial cost.

**NCG: Regal:**

b. Which theater is cheaper if you want to see the movie and also get a drink and popcorn?

![[image]]()4. Two helicopters are headed toward a landing spot. Hank’s helicopter is currently at an altitude of 1250 feet and approaching the ground at a rate of 75 feet per minute. Bill’s helicopter is approaching the ground at a rate illustrated by the graph.

a. Write an equation for both helicopters.

 **Hank: Bill:**

b. Which helicopter is descending faster? c. Which helicopter will land first? How long will it take?

5. Answer the following questions about the functions:



a. Which function has the larger rate of change? Explain why.

b. Which function has the higher starting amount? Explain why.

6. Answer the following questions about the functions: 

a. Which function charges more per hour? Explain why.

b. Which function has the higher rental fee? Explain why.