Name _____ Date _____ Class _____

CHAPTER 2

Project

Sky High

Activity 1: Stories of Floors *Use after Lesson 2-4*

1. Do you think that there is a linear relationship between the number of floors in a skyscraper and the height? Explain.

1/2

2. Find the number of floors and the heights of two of the tallest buildings in the world. Use the number of floors as the independent variable.

1/4

Building	Floors	Height

Find a linear model to fit the function.

1/2

What does the slope represent?

1/2

What does the intercept represent? Does it make sense to apply the intercept to the real-life situation?

1/2

3. Use the linear model from Problem 2.

Predict the height in a skyscraper with 140 floors.

1/1

Predict the number of floors of a skyscraper that is 1500 ft tall.

1/1

4. Reverse the independent and dependent variables and find a new linear model.

1/2

What do the slope and y-intercept of this model represent?

1/2

Use this model to predict the number of floors in a skyscraper that is 1500 ft tall. Is your answer the same as in Problem 3?

1/2

5. These two linear models can only give approximations of the height or number of floors for any given skyscraper. Give at least 2 reasons explaining why.

1/2