

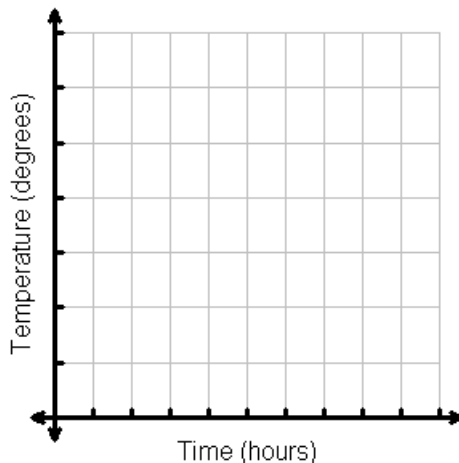
Linear and Exponential Stories

Name: _____ Date: _____

You are staying at a hotel that has a hot tub. The clerk forgot to make sure it was heated up. Right now the temperature is 70 degrees. The clerk says that it will get 10% warmer every hour.

- 1) When will the temperature be at least 103 degrees?

Time (hrs.)	Temperature (degrees)



- 2) In this context, will the function be discrete or continuous?

- 3) Why is the equation $y = 70(1.1)^x$?

The yearbook staff is unpacking a box of school yearbooks. The sequence 281, 270, 259, 248, ... represents the total number of ounces that the box weighs as each yearbook is taken out.

- 1) What is the weight of each yearbook?
- 2) After 20 yearbooks were unpacked, how much did the box weigh?
- 3) If the full box of yearbooks weighs 281 ounces, how many yearbooks were in the box? (Hint: 1 pound=16 ounces)

Write your own story to match each of the following functions:

1) $f(x) = 3x + 12$

2) $f(x) = 4(2)^x$
