Name: _____

Chapter 1 – *Section 1.3 Linear Functions*

TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

Check your understanding:

1. Determine whether the following data is **linear** and explain why or why not.

x	***y***
5	86
8	182
9	222
12	366
13	422

2. The function $L(t) = 17.75 + \frac{1}{250}t$, where $L(t)$ represents the length of the stalactite, in inches, and t represents the time in years, sense the stalactite was first measured.
   a. What does the 17.75 represent on the graph? What does it mean in in the context of the problem?

   b. What does the $\frac{1}{250}$ represent on the graph? What does it mean in in the context of the problem?

3. A moving company charges a flat rate of $100.97 per day plus $0.81 per mile.
   a. Express the cost of moving, C as a function of miles, m.

   b. What is the average rate of change in dollars per mile?

   c. If the move is 12 miles, what is the expected cost?

   d. Jamie received an estimate for a move of $219.23. The actual move was 8 miles. What was the actual cost of the move?