Name: _____

Chapter 1 – *Section 1.2 Rates of Change*

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.

Define the **average rate of change** for $Q = f(t)$ over the interval $a \leq t \leq b$

Check your understanding:

1. The table shows the number of manatees killed by powerboats in Florida from 1986 through 1990.

Year	Manatees killed
1986	33
1987	39
1988	50
1989	46
1990	40

   a. Find and interpret the **average rate of change** of the number of manatees killed annually from 1986 to 1988.

   b. Find and interpret the **average rate of change** of the number of manatees killed annually from 1988 to 1990.

   c. Suppose the number of manatees killed is a function of year. Over which interval(s) is the function increasing? Over which interval(s) is the function decreasing?

   d. Is there a relationship between average rate of change and the behavior of the function (increasing/decreasing)?

2. The following table shows the size of the graduating senior class at BLE high school for several years.

Year	Number of Students in graduating class
1985	135
1990	149
1995	155
2000	154
2005	152
2010	142

   Find and interpret the **average rate of change** for the graduating class between 1985 and 2010.