Name: _____

Chapter 13 – Section 13.1 Sequences

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 following:

- **Arithmetic Sequence**
- **Geometric Sequence**

Check your understanding:

1. Is the following sequence, $1, \frac{1}{5}, \frac{1}{25}, \frac{1}{125}, \ldots$ arithmetic, geometric, or neither? Explain.

2. For the arithmetic sequence $a_1, a_2, \ldots, a_n$, suppose $a_1 = 1$, $a_2 = 3$. What is a_{20}?

3. Let $a_1, a_2, a_3, \ldots, a_n$ be an arithmetic sequence with $a_1 = 6.4$ and $a_3 = 4.2$. What is a_8?

4. Let $a_1, a_2, a_3, \ldots, a_n$ be a geometric sequence with $a_2 = 12$ and $a_4 = 108$. What is a_{10}?

5. A person decides to walk for 19 minutes one day, and then increases his walks by 3 minutes each day for a month. Let $a_1, a_2, \cdots, a_n$ be the sequence showing the length of time he walks each day, where a_n is the length of time he walks on day n. What is a_{29}?