2015 SM1 Week 8 Investigation

This weeks investigation is to connect the numeric and algebraic concepts of **arithmetic** and **geometric** sequences to their graphical representations.

I-1. State the **numeric** sequence of 3 different **arithmetic** and **geometric** sequences (these can be from the text questions you have completed, or you can come up with your own.) Make sure that one of the arithmetic sequences has a negative difference and one of the geometric sequences has a fraction ratio.

I-2. State the **algebraic** rule for each sequence. (remember to simplify fully)

I-3. **Graph** each sequence, where the x-axis is the term number, and the y-axis is the value of the term.

I-4. What do you notice about these graphs? Make a general comment that describes the graphical representation of an **arithmetic** and a **geometric** sequence.