Computer Lab: March 7th, 2019 **Name: _____**

 Period:

Use the links below that are provided within each problem.

1) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqArithnTerm.cgi and correctly do one problem.

sequence:

$n =$

2) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqArithSum2.cgi and correctly do one problem.

series:

$n =$ $S_n =$

3) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqArithSum1.cgi and correctly do one problem.

series:

$a =$ $S =$

4) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqGeoForm.cgi and correctly do one problem.

sequence:

$a_n =$

5) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqGeoSum.cgi and correctly do one problem.

finite series:

$r =$ $S =$

6) Go to http://www.mathguide.com/cgi-bin/quizmasters/seqGeoISum.cgi and correctly do one problem.

infinite series:

$r =$ $S_\infty =$

Find the sum for each problem without the use of a calculator.

7) $\sum_{k=5}^{12}(3k-8)$

8) $\sum_{j=1}^{\infty}5\left(\frac{1}{3}\right)^{j-1}$

Solve each of this real-world problems using sequences and/or series.

9) If you had $145 in your account at the beginning of week 13 and $205 at the beginning of week 18, how much are you depositing weekly?

10) You throw a SuperBall on the cement as hard as you can and watch it bounce until it stops. You notice the first bounce reaches a height of 200 ft, but the second bounce reaches only half of that height. How high will the 7th bounce reach? How far (total distance) has the ball traveled before the 8th bounce?

11) You decide you are going to open a savings account. Each week, you are going to deposit $3 more than the previous week. The first week, you deposit $10.

How much money will you deposit during the 25th week?

How much money will you have at the end of the 25th week?

12) Go to https://www.youtube.com/watch?v=-y1Ob0K63hc and write a summary of a mathematical property that you saw.