Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Problem Set 4.5***

***Open a Microsoft Excel Sheet and save it as PS 4.5.***

1. In Sheet 1 build an excel worksheet for the **geometric sequence** defined by

 that will show you the value of g75 . In Column A outline n values and in Column B evaluate gn. What is g75?

a) Continue the excel worksheet in Column C that shows the sum of the **series**

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(You should be able to see all partial sums from n = 1 to n = 75).

b) Verify that your sum in column C works by using the SUM function in column B. What is the value of ?

2. In Sheet 2 build an excel worksheet for the **arithmetic sequence** defined by

an = 9n + 3 that will show the value of a100. In Column A outline n values and in Column B evaluate an. What is a100?

a) Continue the excel worksheet in Column C that shows the sum of the **series**

$$\sum\_{n=1}^{100}a\_{n}$$

(You should be able to see all partial sums from n = 1 to n = 100).

b) Verify that your sum in column C works by using the SUM function in Column B.

3. In Sheet 3 build an excel worksheet for the **recursive sequence** defined by

$$\left\{\begin{array}{c}a\_{1}=3 \\a\_{n}=5a\_{n-1}-10;n>1\end{array}\right.$$

that will show the value of a62. In Column A outline n values and in Column B evaluate an. What is a62?

a) Continue the excel worksheet in Column C that shows the sum of the **series**

$$\sum\_{n=1}^{62}a\_{n}$$

(You should be able to see all partial sums from n = 1 to n = 62).

b) Verify that your sum in column C works by using the SUM function in Column B.