Hwk #4

Student:_____ Class:_____ Date_____

Arithmetic and geometric sequences and series

Student Activity Sheet 2; *Exploring* "Arithmetic sequences and series"

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2. **REINFORCE** Find the first four terms of a sequence using the recursive definition.

   a. $f(1) = 6$
   $f(n) = f(n - 1) - 5$
   for integer values of $n > 1$

   b. $f(0) = 8$
   $f(n) = 2f(n - 1) + 6$
   for integer values of $n > 0$

   c. $f(1) = 2, f(2) = 5$
   $f(n) = 2f(n - 2) + f(n - 1)$
   for integer values of $n > 2$

   d. $f(1) = 2$
   $f(n) = -3f(n - 1) + [f(n - 1)]^2$
   for integer values of $n > 1$

   e. $f(0) = -1,$
   $f(1) = 3$
   $f(n) = f(n - 1) \cdot f(n - 2)$
   for integer values of $n > 2$

8. **REINFORCE** Consider the sequence -5, 1, 7, 13, 19, 25.... Write a recursive definition and a general formula for this sequence.