Name:_____

1   Fill-in the appropriate term for the following definitions.

   A)   An ordered arrangement of numbers, symbols or pictures in
         which each item or term follows another according to some
         rule is called: _____

   B)   A sequence which is said to continue indefinitely is
         called: _____

   C)   If a sequence eventually ends, it is called: _____

2   A)   Give an example of an infinite sequence where the first term is –28 and each term
           increases by 7. List the first 5 terms of the sequence. What is t_8?

           {   } t_8 = _____

   B)   Give an example of a finite sequence that has 8 terms and the first term is –8 and each
         term decreases by 6. List all members of this sequence.

           {   }

3   In each sequence below:

           i)   describe a rule that was used to create each term.
           ii)   use the rule to find and list the next three terms in the sequence.

   A)   {80, 40, 20, 10, . . . }

           i)_____

           ii)_____

   B)   {1, 9, 17, 25, 33, . . . }

           i)_____

           ii)_____

   C)   {1, 8, 27, 64, 125, . . .}

           i)_____

           ii)_____

   D)   { Kim, Mike, Emily, Cheryl, . . . }

           i)_____

           ii)_____

E)   {4, 12, 36, 108, 324, . . . }

  i)_____

  ii)_____
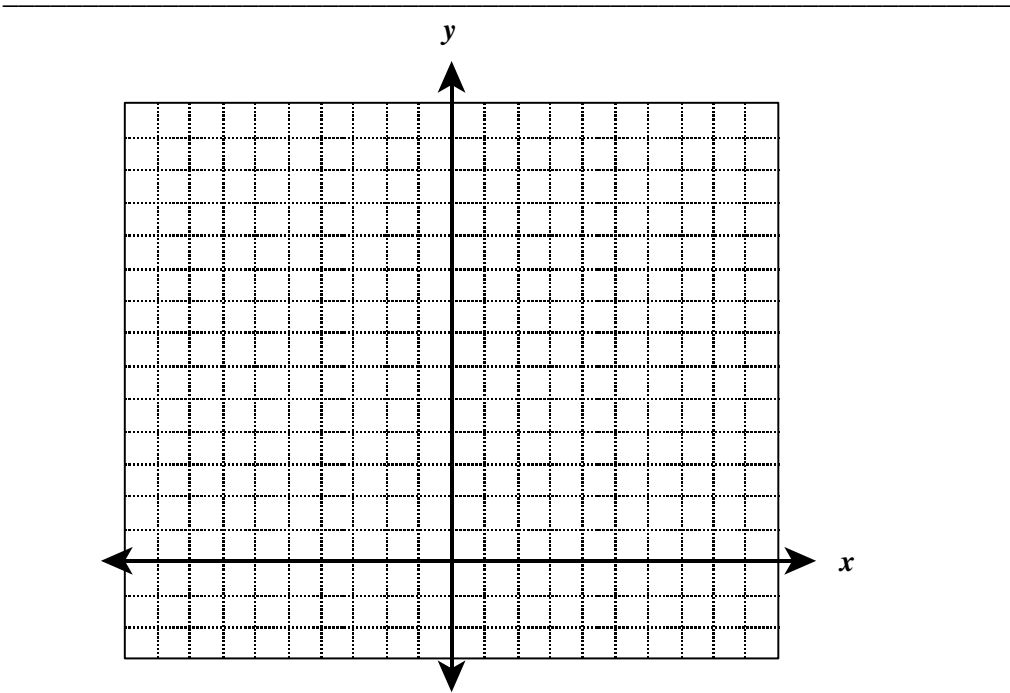

F)   {2, 5, 10, 17, 26, . . . }

  i)_____

  ii)_____

4   Given the sequence below:

  {2, 5, 8, 11, 14, . . . }

  A)   Complete the table below.

Term Number (n)	1	2	3	4	5
Term Value (t_n)					

  B)   Sketch the sequence on the x-y plane provided. Do not join the points. Why?

  _____

  C)   Find the slope of the line. Slope = _____.

  What kind of a pattern did you notice from the graph?_____

  _____

  D)   What do you notice about D_1 and the slope of the graph?