Algebra II Name _____

Sequence 2

1. Which of the following sequences is arithmetic? Make sure you can explain why.

a. 1, -1, -3, -5, -7, …..

b. 5, 8, 13, 20, 19, …….

c. 36, 18, 9, 4.5, 2.25, …

d. -12, -6, 0, 6, 12, ….

e. 1, 3, 9, 27, 81, …..

f. $\frac{1}{2},\frac{3}{4},1,\frac{5}{4},\frac{3}{2},...$

2. Write rule for the nth term of the sequence. Then find the sum of the first 30 terms.

a. 12, 20, 28, 36, …..

b. 51, 48, 45, 42, …..

c. 2.3, 1.5, 0.7, -0.1, ….

d. $-2,-\frac{5}{4},-\frac{1}{2},\frac{1}{4},...$

3. Write a rule for the nth tem of the arithmetic sequence given the following.

a. $a_{11} = 43$, $d = 5$

b. $a_{17} = -5$, $d = -1/2$

c. $a_5 = 41$, $a_{10} = 96$

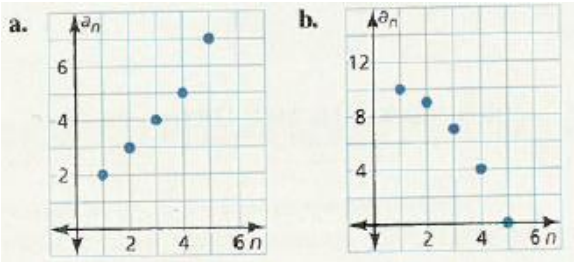
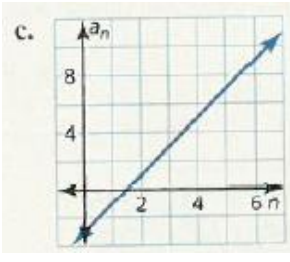
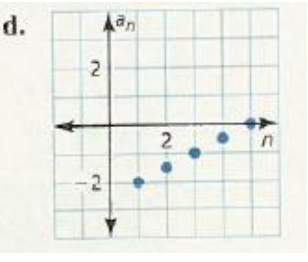
d. $a_6 = -8$, $a_{15} = -62$

e. $a_8 = 12$, $a_{16} = 22$

f. $a_{12} = 9$, $a_{27} = 15$

4. Find the following sums.

a. $\sum_{i=1}^{31} -3-4i$

b. $\sum_{i=1}^{45} -2.3+0.1i$

5. Which of the following graph(s) represent an arithmetic sequence? Explain why.