

**Problem Set 4.2**

**1 - 3] Give the recursive and explicit notation for the arithmetic sequence.**

1.) 7, 13, 19, 25, ...

2.)  $-3, -10, -17, -24, -31, \dots$

3.)  $\frac{2}{3}, 1, \frac{4}{3}, \frac{5}{3}, 2, \frac{7}{3}, \dots$

Recursive:

Recursive:

Recursive:

Explicit:

Explicit:

Explicit:

4.) What is the 143<sup>th</sup> term of the sequence in number 2?

5.) Find the **explicit formula** for the arithmetic sequence where  $a_{24} = 187$  and the common difference is 3.

6.) Find the **explicit formula** for the arithmetic sequence where  $a_{10} = -26$  and  $a_{20} = -56$ .

7.) Find the **explicit formula** for the arithmetic sequence where  $b_4 = 19$ ,  $b_5 = 15$ , and  $b_6 = 11$ .

8.) Find the **explicit formula** for the arithmetic sequence where  $a_7 = 4$  and  $a_{12} = -9$ .

9.) Sol LeWitt's sculpture *Four-Sided Pyramid* in the National Gallery of Art Sculpture Garden is made of concrete blocks. As shown in the diagram below, each layer has 8 more visible blocks than the layer in front of it. Write an explicit formula that gives the number of visible blocks in the  $n^{\text{th}}$  layer where  $n = 1$  represents the front layer.

