Sequences Name:_____

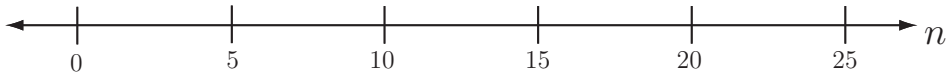
Show all relevant work!

1. Complete the following sequences.

(a) $3, 7, 11, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.$ (b) $\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 1, 7, 13, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.$

2. Graph the points you found in part (1) on the number lines below.

(a)



(b)

3. Technically, a sequence is a relationship between the counting numbers, used as inputs, and a set of output values. The counting numbers just indicate the term number of each value in the sequence. The sequences above show only the output values. Transfer the sequences in (1) to the tables below.

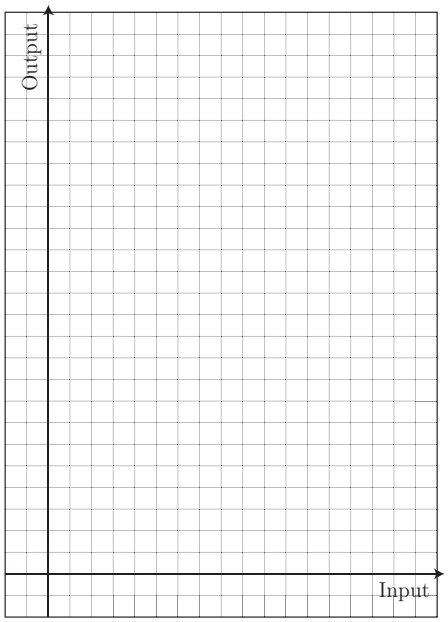
(a)

Input (term number):	1	2	3	4	5	6
Output:						

(b)

Input (term number):									
Output:									

4. Plot points for each number in the sequence from 3(a).

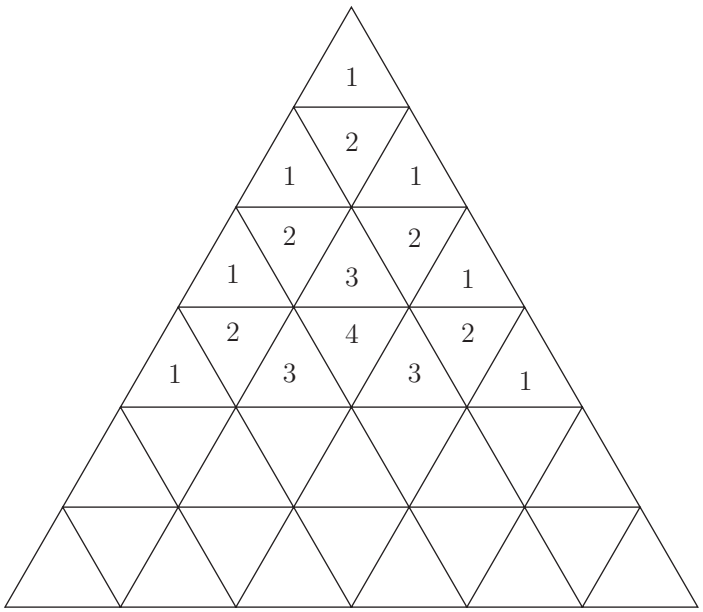


5. (a) Draw the next two shapes in the sequence:

_____ , _____

(b) Describe or draw the twentieth figure in the sequence.

6. Complete the triangle below.



7. Find at least two patterns in the triangle from #6.

8. (a) What percent is 14 out of 20?

(b) What is 30% off of a shirt that costs $40? What is the final cost with 9% tax?

(c) If tax is 10% and Jerome has $50 in his pocket, what is most he can afford to pay before tax?