## Write both the explicit and recursive formulas for the sequences given below:

1.Sequence: 5, 10, 20, 40, . . .

 $a_1 =$ 

$$r =$$

$$r =$$

**Explicit:** 

Recursive:

3. Sequence if

a is total number of dots in that group:













$$a_1 =$$

$$r =$$

**Explicit:** 

Recursive:

2. Sequence: -3, 9, -27, 81, . . .  $a_1 =$ 

Explicit:

Recursive:

4. Sequence: 256, 64, 16, 4, . . .

$$a_1 =$$

r =

Explicit:

Recursive:

## STATION 2

Given the explicit formula or recursive formula write the first 5 terms of the sequence.

7. 
$$a_n = 5(3)^{n-1}$$

8. 
$$a_n = -2(1)^{n-1}$$

9. 
$$a_n = 7(1/4)^{n-1}$$

10. 
$$a_1 = -3$$
 $a_n = a_{n-1} \cdot 2$ 

11. 
$$a_1 = 1$$

$$a_n = a_{n-1} - 10$$

12. 
$$a_1 = -99$$

$$a_n = a_{n-1} \cdot 1/3$$

## STATION 3

13. Given that  $a_3 = 54$  and  $a_5 = 486$  for a geometric sequence, find  $a_{12}$ 

14. Given that  $a_2 = 20$  and  $a_5 = -160$  for a geometric sequence, find  $a_{10}$ 

15. Given that  $a_1 = 3$  and  $a_4 = 1/9$  for a geometric sequence, find the explicit formula.

16. Given that  $a_3 = 25$  and  $a_5 = 6.25$  for a geometric sequence, find the recursive formula.

## STATION 4

17. Given that  $a_{4} = 2$  and  $a_{9} = 42$  for aa

ARITHMETIC sequence, find the

- a. Explicit rule.
- B. Recursive Rule

Then find  $a_{14} =$ 

18. A drive-in theater has spaces for 20 cars in the first parking row, 22 in the second, 24 in the third and so on. If there are 21 rows in the theater, find the number of cars that can be parked.