SEQUENCES

A NUMERICAL SEQUENCE

A.1 FINDING NEXT TERM IN ARITHMETIC SEQUENCE

Ex 1: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	3	5	7	9	11	

Ex 2: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	3	8	13	18	23	

Ex 3: What is the 5th term of this sequence?

n	1	2	3	4	5
n^{th} term	20	18	16	14	

Ex 4: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	80	70	60	50	40	

A.2 FINDING A TERM IN ARITHMETIC SEQUENCE

Ex 5: What is the 6th term of this sequence?

n	1	2	3	4	...	6
n^{th} term	3	5	7	9	...	

Ex 6: What is the 5th term of this sequence?

n	1	2	3	...	5	n^{th} term

Ex 7: What is the 6th term of this sequence?

n	1	2	3	...	6	n^{th} term

Ex 8: What is the 5th term of this sequence?

n	1	2	3	...	5	n^{th} term	50

A.3 FINDING NEXT TERM IN GEOMETRIC SEQUENCE

Ex 9: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	2	4	8	16	32	

Ex 10: What is the 5th term of this sequence?

n	1	2	3	4	5
n^{th} term	1	3	9	27	

Ex 11: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	64	32	16	8	4	

Ex 12: What is the 5th term of this sequence?

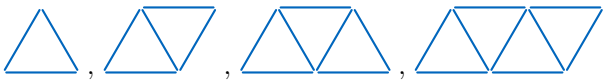
n	1	2	3	4	5
n^{th} term	243	81	27	9	

Ex 13: What is the 6th term of this sequence?

n	1	2	3	4	5	6
n^{th} term	3	6	12	24	48	

A.4 FINDING RULES IN GEOMETRIC PATTERNS

Ex 14: Observe the following pattern made with sticks:



Fill in the table below:

Diagram number	1	2	3	4
Number of sticks				

What rule can you find for the number of sticks?
Start with ____ sticks. Add ____ sticks for the next diagram.

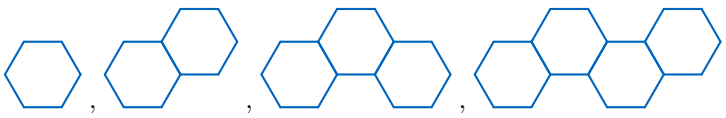
Ex 15: Observe the following pattern made with sticks:

Fill in the table below:

Diagram number	1	2	3	4
Number of sticks				

What rule can you find for the number of sticks?
Start with ____ sticks. Add ____ sticks for the next diagram.

Ex 16: Observe the following pattern made with sticks:



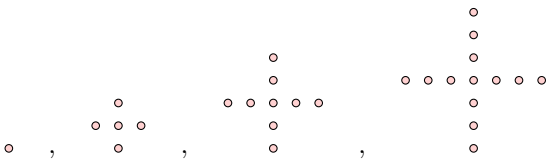
Fill in the table below:

Diagram number	1	2	3	4
Number of sticks				

What rule can you find for the number of sticks?
Start with ____ sticks. Add ____ sticks for the next diagram.

A.5 FINDING RULES IN DOT PATTERNS

Ex 17: Observe the following pattern made with dots:



Fill in the table below:

Diagram number	1	2	3	4
Number of dots				

What rule can you find for the number of dots?

Start with ☐ dot. Add ☐ more dots for each new diagram.

Ex 18: Observe the following pattern made with dots:

Fill in the table below:

Diagram number	1	2	3	4
Number of dots				

What rule can you find for the number of dots?

Start with ☐ dot. Add ☐ more dots for each new diagram.