

NAME

QUARTER 1

GRADE &amp; SECTION

DATE

## Activity: Generating Patterns

- A. Identify the next term in each sequence. Choose from the options provided on the right side of the activity.

1. 3, 7, 11, 15,

2. 3, 6, 12, 24,

3. 7, 4, 1, -2,

4. -1, 4, -9, 16,

### ANSWER BANK

1

-1

5

-5

19

-25

25

48

- B. Complete the equation/formula that is used to generate the sequence.

1. 3, 5, 7, ...

$$3 = 2(1) + 1$$

$$5 = 2(2) + 1$$

$$7 = 2(3) + 1$$

$$a_n = \boxed{\phantom{00}} n \boxed{\phantom{00}} \boxed{\phantom{00}}$$

3. 2, 7, 12, ...

$$2 = \phantom{00}(1)$$

$$7 = \phantom{00}(2)$$

$$12 = \phantom{00}(3)$$

$$a_n = \boxed{\phantom{00}} n \boxed{\phantom{00}} \boxed{\phantom{00}}$$

2. 5, 10, 15, 20, ...

$$5 = \phantom{00}(1)$$

$$10 = \phantom{00}(2)$$

$$15 = \phantom{00}(3)$$

$$a_n = \boxed{\phantom{00}} n$$

4. 5, 8, 13, 20, ...

$$5 = (1)^2$$

$$8 = (2)^2$$

$$13 = (3)^2$$

$$a_n = n^2 \boxed{\phantom{00}} \boxed{\phantom{00}}$$