

# Activity 2 Assessment

## Investigating Increasing and Decreasing Patterns

### Generalizing and Representing Patterns

Recognizes that a pattern can repeat, increase, or decrease.



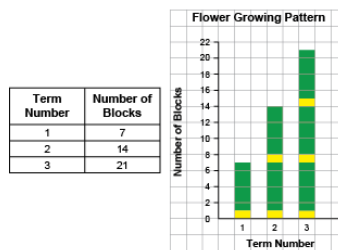
"This is an increasing pattern. I know this because each time there are more blocks."

Identifies how a pattern changes and describes the pattern rule.



"The pattern rule is: Start with 1 hexagon and 6 triangles. Add one hexagon and 6 triangles each time."

Represents patterns using a table or chart.



"The table shows the number of blocks increases by 7 each time, and the graph shows the height of the bars increases by the same amount."

Represents patterns symbolically and writes the pattern rule.

7, 14, 21

"The number of blocks in each term increases by 7 because each flower has 7 blocks.  
Term 3:  $7 + 7 + 7 = 21$ ."

### Observations/Documentation

## Activity 2 Assessment

### Investigating Increasing and Decreasing Patterns

#### Generalizing and Representing Patterns (cont'd)

Extends patterns using repeated addition, repeated subtraction, or multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60

“I extended the patterns in the number of hexagons and triangles using a multiplication chart.”

Creates patterns and explains the pattern rule.

23, 31, 39, 47, 55, 63, 71, 79, 87, 95

“I created an increasing pattern that starts at 23 and increases by 8 each time.”

Uses patterns to solve problems.

Yasmin and her family are planning a celebration and need to arrange 70 chairs.

Number of Tables	Number of Chairs	Total Chairs
1	4	4
2	6	10
3	8	18
4	10	28
5	12	40
6	14	54

“I added the number of chairs in the first 6 terms (54).  
Term 7 is 16 and  $54 + 16 = 70$ .  
Yasmin will need 7 tables.”

Fluently identifies, creates, and extends patterns to solve real-life problems.

Sami takes 40 minutes to make one bracelet. How many bracelets can Sami make in 6 hours?

Number of Bracelets	Total Time in Minutes
1	40
2	80
3	120
4	160
5	200
6	240

“There are 360 minutes in 6 hours. I know that the pattern increases by 40 mins each term.  $9 \times 40 = 360$ .  
Sami can make 9 bracelets in 6 hours.”

#### Observations/Documentation