Activity 1 Assessment
Repeating and Growing Patterns

Generalizing and Representing Patterns

| Recognizes that a pattern can repeat, increase, or decrease.	Identifies how a pattern changes and describes the pattern rule.	Represents patterns using a table or chart.	Represents patterns symbolically and writes the pattern rule.

1   2   3

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

1   2   3

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

Flower Growing Pattern

Term Number	Number of Blocks
1	7
2	14
3	21
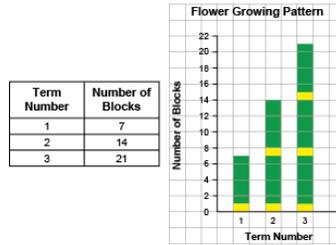
"The table shows the number of blocks increases by 7 each time, and the graph shows the height of the bars increases by the same amount."

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

Mathology 4
Copyright © 2022 Pearson Canada Inc.

The right to reproduce or modify this page is restricted to purchasing schools.
This page may have been modified from its original.

Activity 1 Assessment
Repeating and Growing Patterns

Generalizing and Representing Patterns (cont'd)

Extends patterns using repeated addition, repeated subtraction, or multiplication.	Creates patterns and explains the pattern rule.	Uses patterns to solve problems.	Fluently identifies, creates, and extends patterns to solve real-life problems.

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 × 40 = 360. Sami can make 9 bracelets in 6 hours."

Observations/Documentation