

# Activity 2 Assessment

## Representing Patterns

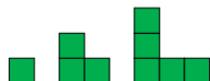
### Generalizing and Representing Increasing and Decreasing Patterns

Recognizes that a pattern increases or decreases



“The terms are getting bigger.”

Identifies how a pattern changes (describes rule)



“It grows by 2 tiles each time.”

Represents patterns symbolically and writes rules using addition or subtraction

1, 3, 5, ...  
“Start at 1 and add 2 each time.”  
17, 14, 11, ...  
“Start at 17 and take away 3 each time.”

Extends patterns using repeated addition and subtraction

$$357 - 9 = 348$$

$$357 - 12 = 345$$

$$357 - 15 = 342$$

$$357 - 18 = 339$$

“I added 3 to the number taken away and subtracted 3 from the difference.”

### Observations/Documentation

Finds missing terms or errors in patterns

3, 8, 13, 18, 22, 28, ....  
“Start at 3 and add 5 each time.  
 $18 + 5 = 23$ , so 22 should be 23.”

32, 28, ★, 20, 16, 12, 8, ....  
“Start at 32 and subtract 4 each time.  
 $28 - 4 = \star$ , so ★ is 24.”

Creates patterns and explains pattern rules

“85, 75, 65, 55, ....  
I started with my house number and took away 10 each time.”

Uses patterns to solve problems

“If I save 2 quarters a day, when will I have 10 quarters?  
2, 4, 6, 8, 10  
I will have 10 quarters after 5 days.”

Identifies and extends patterns involving multiplication

Input	1	2	3	4	5
Output	2	4	6	8	10

“Each input number is multiplied by 2.”

### Observations/Documentation