Name _____

Reteaching
2-7

Using Expressions to Describe Patterns

You can write an expression to describe the pattern in an input/output table.

Look at the first input and output values in the table.

Ask Yourself: What do I need to do to the input 11 to get the output 5?

You might need to add, subtract, multiply, divide, or perform more than one operation.

INPUT	OUTPUT
11	5
12	6
13	7
15	★
20	★

In this table, you can subtract 6 from 11 to get 5.

Check the input and output values for 12 and 13.

$12 - 6 = 6$

$13 - 6 = 7$

The pattern is true for all of the values in the table. So, the pattern is subtract 6.

You can write the expression $x - 6$ to describe the pattern.

Substitute input values for the variable x to get the output values.

Find the output values for 15 and 20. _____

The input/output table shows how much Jake pays for toys. Use the input/output table for **1–4.**

INPUT	OUTPUT
6	18
7	21
8	24
9	27

1. If Jake buys 12 toys, what is the cost? _____

2. If Jake pays $45, how many toys did he buy? _____

3. Write an expression to describe the output pattern if the input is the variable t. _____

4. What inputs and outputs should be added to the table for 20 toys? _____

5. Writing to Explain Jessie says that the expression 2x describes the input/output table. Explain why Jessie's expression is correct or incorrect.

INPUT	2	3	4	5
OUTPUT	4	5	6	7

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_____

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