

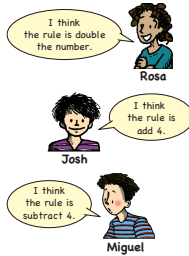
Name \_\_\_\_\_ Date \_\_\_\_\_

**Input-Output Numbers**

1. Look at the rule table below. The students in Mrs. Hunter's class are trying to guess the rule

Rule:

Input	Output
4	8
6	10
10	14
15	19
20	24



Test each student's rule. Do you agree with Rosa, Josh, or Miguel? On the lines below, tell why you agree with Rosa, Josh, or Miguel. Remember that the rule has to fit all the input numbers.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Copyright © Kendall Hunt Publishing Company

**Student Activity Book - Page 795**

**Student Activity Book**

**Input-Output Numbers (SAB pp. 795–796) Questions 1–4**

1. Josh. Responses may vary. A possible response is: I agree with Josh because I tested Rosa's rule and it only worked for the first row of numbers. It didn't work for any of the other input numbers. For example, if you double 6, the output would be 12, not 10. Miguel's rule doesn't work because he used the rule on the output numbers instead of the input numbers.

- 2.

Rule: Add 6

Input	Output	Number Sentence
5	11	$5 + 6 = 11$
7	13	$7 + 6 = 13$
11	17	$11 + 6 = 17$
9	15	$9 + 6 = 15$
14	20	$14 + 6 = 20$
30	36	$30 + 6 = 36$

3. Add 5
4. Responses will vary. Possible response is indicated in the last row of the data table.

Rule: Add 5

Input	Output
5	10
7	12
9	14
11	16
30	35

Copyright © Kendall Hunt Publishing Company

Name \_\_\_\_\_ Date \_\_\_\_\_

2. Complete the input and output numbers for the rule machine. Write a number sentence for each row of input-output numbers.

Rule: Add 6

Input	Output	Number Sentence
5		
7		
	17	
9		
	20	
30		

3. What is the rule for the rule machine below?

Rule:

Input	Output
5	10
7	12
9	14
11	16

4. In the last row of the data table, write another input and output number that fits the rule.

Copyright © Kendall Hunt Publishing Company

**Student Activity Book - Page 796**

Teacher Guide

Rule Machine Tables (TG)

Rule: Subtract 9	
Input	Output
9	0
11	2
13	4
14	5
16	7
18	9
21	12
25	16

Rule: Add 6	
Input	Output
1	7
3	9
5	11
8	14
9	15
12	18
14	20
20	26

Name \_\_\_\_\_ Date \_\_\_\_\_

### Rule Machine Tables

**Homework**

Dear Family Member:

In class, we have been working with rule machines. A rule machine applies various rules to input numbers to generate output numbers. For example, if the rule is "Add 4", and the input number is 2, the output number is 6.

$2 + 4 = \boxed{6}$

Thank you.

**Fill out the tables for these Rule Machines.**

Rule: Subtract 9	
Input	Output
9	
11	
13	
	5
	7
18	
21	
25	

Rule:	
Input	Output
1	7
3	9
5	11
	14
	15
	18
14	
20	

Copyright © Kendall Hunt Publishing Company

Homework Master TG • Grade 2 • Unit 15 • Lesson 2

Teacher Guide