Name_____ Date_____

Chapter 9 Fair Game Review

Using the numbers from the In and Out Table, find and state the rule in words.

1.

In	Out
1	4
2	5
3	6
4	7

2.

In	Out
2	6
4	12
6	18
8	24

3.

In	Out
12	2
24	14
36	26
48	38

4.

In	Out
4	2
5	$\frac{5}{2}$
6	3
7	$\frac{7}{2}$

5. The In and Out Table shows the results of buying pretzels from a vending machine. The in column is the amount you put into the machine. The out column is the change you receive back from the machine. Complete the table and state the rule in words.

In	Out
0.65	0
0.70	0.05
0.75	0.10
1.00	

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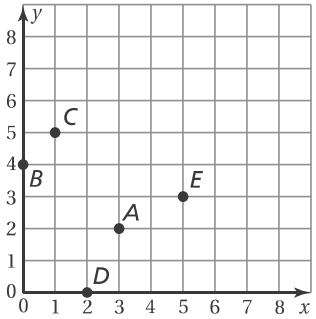
Chapter 9 Fair Game Review (continued)

Use the graph to write an ordered pair corresponding to the point.



6. Point A

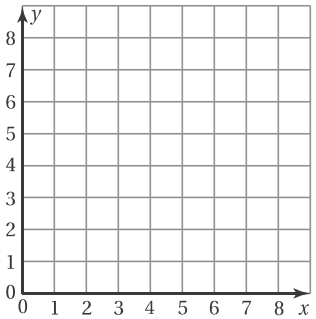
7. Point B

8. Point C

9. Point D

10. Point E

Plot the point on the graph.



11. $P(2, 5)$

12. $Q(0, 1)$

13. $R(3, 3)$

14. $S(4, 2)$

15. $T(5, 0)$

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9.1 Mapping Diagrams

For use with Activity 9.1

Essential Question What is a mapping diagram? How can it be used to represent a function?

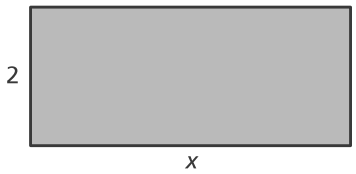
1 ACTIVITY: Constructing Mapping Diagrams

Work with a partner. Complete the mapping diagram.

a. Area A

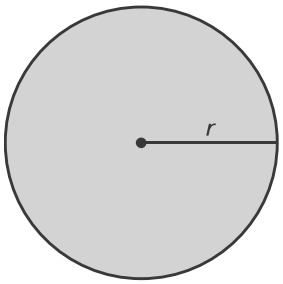
Input, x	Output, A
1	
2	
3	
4	

b. Perimeter P



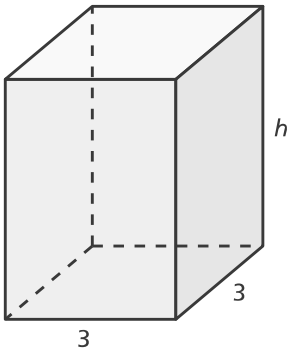
Input, x	Output, P
1	
2	
3	
4	

c. Circumference C



Input, r	Output, C
1	
2	
3	
4	

d. Volume V



Input, h	Output, V
1	
2	
3	
4	

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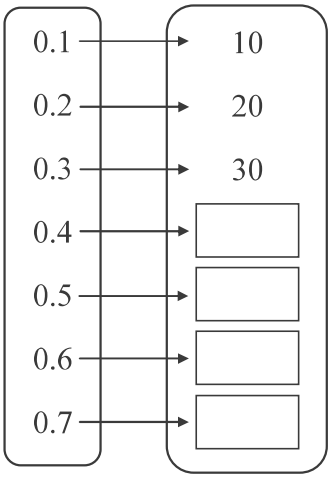
9.1 Mapping Diagrams (continued)

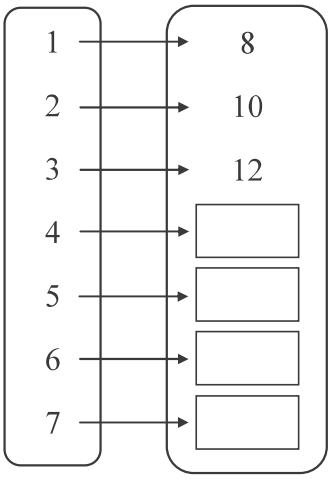
2 ACTIVITY: Interpreting Mapping Diagrams

Work with a partner. Describe the pattern in the mapping diagram. Complete the diagram. Find two earlier lessons where you used a similar function.

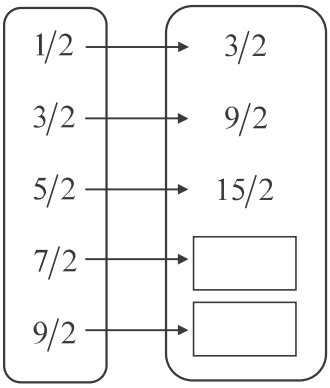
a. **Input, *d*** **Output, *P***



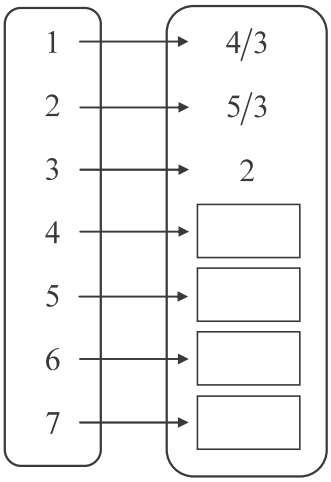
b. **Input, *t*** **Output, *M***



c. **Input, *n*** **Output, *S***



d. **Input, *x*** **Output, *A***



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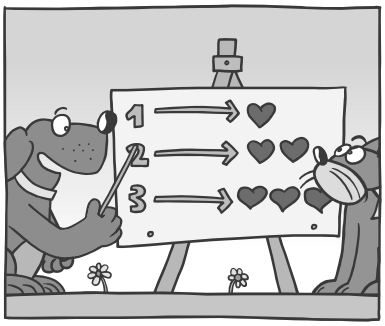
9.1 Mapping Diagrams (continued)

What Is Your Answer?

3. **IN YOUR OWN WORDS** What is a mapping diagram? How can it be used to represent a function?

4. Construct a mapping diagram that represents a function you have studied.



"I made a mapping diagram."

"It shows how I feel about my skateboard with each passing day."

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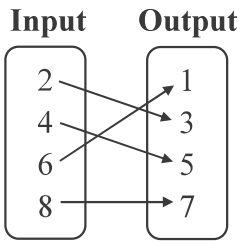
9.1 Practice

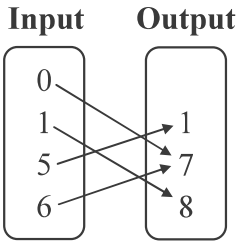
For use after Lesson 9.1

List the ordered pairs shown in the mapping diagram.

1.



2.

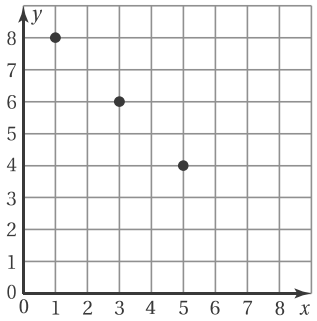


Draw a mapping diagram of the set of ordered pairs.

3. $(1, 7), (3, 4), (4, 8), (7, 2)$

4. $(0, 3), (2, 4), (5, 4), (8, 5)$

5. Draw a mapping diagram for the graph. Then describe the pattern of inputs and outputs.



6. The table shows the number of beads needed to make a bracelet. Use the table to draw a mapping diagram.

Bracelet Length (in.)	Number of Beads
6	12
7	14
8	16
9	18

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