NAME

DATE

**Module 9** Using Functions

**Lesson 1** Defining Relations and Functions

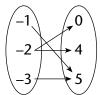


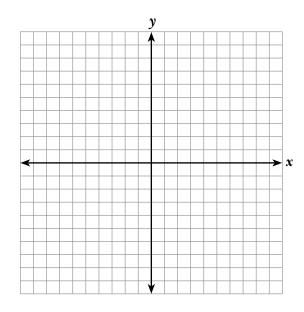
Set 1

1. Find the domain and range of the relation represented by the set

$$M = \{(-1, 2), (-1, 4), (0, 5), (3, -7)\}$$

**2.** Graph on the coordinate plane the relation represented by the following mapping diagram:





**3.** Find the domain and range of the relation given by the equation  $y = x^2$ .

**4.** The relation given by the equation y = x - 3 has a domain of  $\{-1, 0, 1\}$ . Find the range.

Set 2

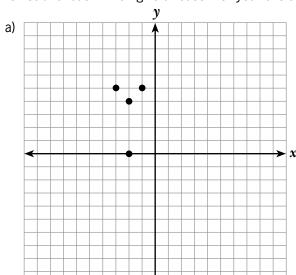
1. How are relations and functions alike? How are they different?

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2. Explain why the vertical line test can be used to determine whether a graph

represents a function.

**3.** Which of the following relations are functions? Write Yes if it is a function or No if it is not a function. Then give a reason for your choice.



b)  $T = \{(0, 4), (5, 4), (0, 1)\}$ 

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	2	18