DIGITAL

NAME _____ DATE _____

Module 9 Using Functions
Lesson 1 Defining Relations and Functions

guided notes

Lesson Objectives

• Represent a relation in set notation, a table, a mapping diagram, a coordinate graph, an equation, and a relation rule.
• Determine domain and range of a relation.
• Determine whether a relation is a function.

A _____ is a set of ordered pairs.

The set of all first coordinates of the ordered pairs is called the

_____ of the relation.

The set of all second coordinates is called the _____ of
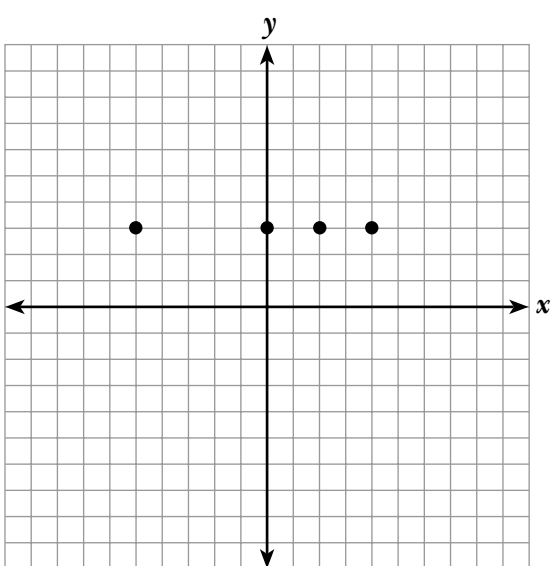
the relation.

Another way to represent a relation is to use a _____.

The elements of the domain are called _____, and the

elements of the range are called _____.

Sometimes a relation is represented by a _____.

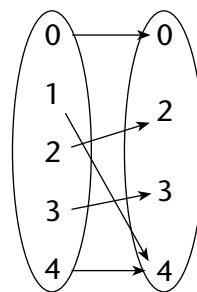Another way to represent a relation is to draw its _____.

1 ▸ Find the domain and range of the relation shown.

_____

_____

© 2003 BestQuest

410-467-3300

Ways to represent a _____:

• set of ordered pairs

• mapping diagram

• table

• equation

• graph

2 ▸ Represent the relation shown in the mapping diagram as a set of
ordered pairs. Then, determine the domain and range of the relation.

_____

_____

_____

A _____ is a relation that assigns to each element of the

domain exactly one element of the range.

When no two elements of the domain are mapped to the same elements of

the range, it is called _____mapping.

A _____ line is a constant function.

A _____ function is a function whose graph is a line or

part of a line.

If a _____ line passes through no more than one point

of the graph of a relation, then the relation is a function.

410-467-3300
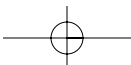
3 ▶ Use the vertical line test to determine which graphs represent functions.

a.

b.

c.

d.