Worksheet 5.2 Relations and Functions

Fill in the blank with the appropriate word, phrase, or symbol to make a true statement.

1. A _____ is a set of ordered pairs of numbers.

2. The _____ of a relation is the set of first coordinates of the ordered pairs and the _____ is the set of second coordinates.

3. A _____ is a relation that assigns exactly one value in the range to each value in the domain.

4. One way to tell whether a relation is a function is to analyze the graph of the relation using the _____ test.

5. A _____ is an equation that describes a function.

6. A function is in _____ when you use f(x) to indicate the outputs.

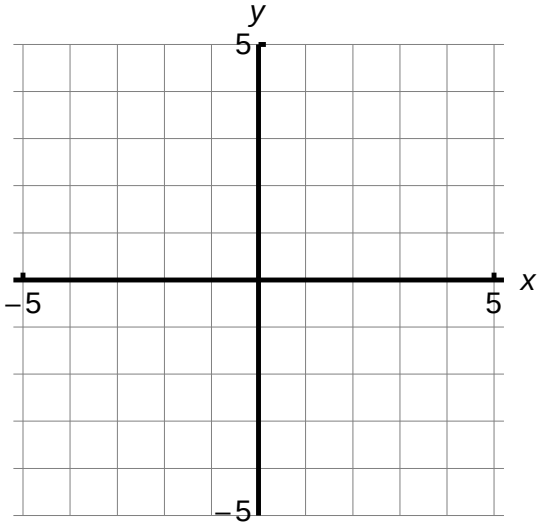
Find the domain and range of each relation.

7. {(4, 6), (6, 7), (4, 3), (5, 19), (5, 7)}

8. {(2, -3), (-2, 3), (2, 3), (-2, -3), (3, -2)}

9. Use the vertical line test to determine whether each relation is a function.

{(3, 7), (1, 8), (3, -2), (5, 4), (6, 1)}



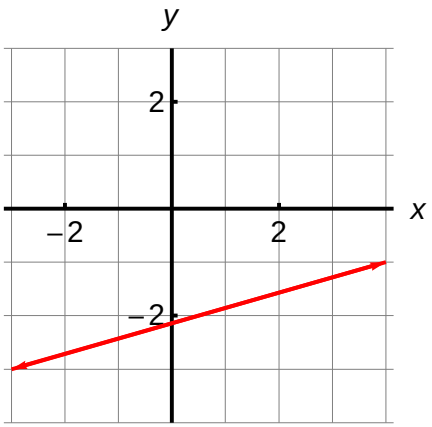
10. Use a mapping diagram to determine whether each relation is a functions.

{(6, -7), (5, -8), (1, 4), (5, 5)}

11. Find the range of the function rule y = 5x - 2 for the domain D = {-5, -1, 0, 2, 10}

Use the vertical-line test to determine whether each graph is the graph of a function.

12.



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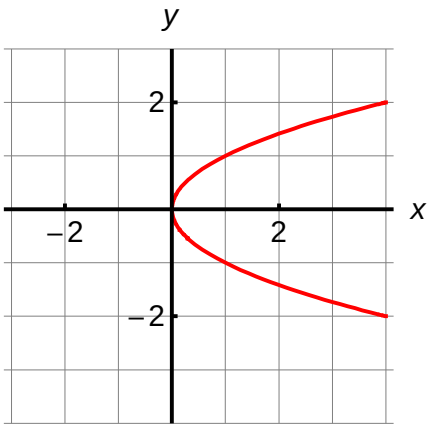

14.