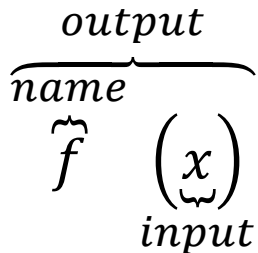


## HW24 Answers

1. A relation where one input is matched with exactly one output.
- 2.



3. A test to determine whether a graph represents a function; any vertical line will touch the graph no more than once.
4. Answers will vary.
5.
  - a. Yes; each input has only one output.
  - b. No; the input "Table" has two outputs
  - c. Yes; each input has only one output.

**Identifying Functions (Tables)**

- |        |        |        |         |         |
|--------|--------|--------|---------|---------|
| 1. No  | 4. No  | 7. Yes | 10. Yes | 13. Yes |
| 2. Yes | 5. No  | 8. No  | 11. Yes | 14. No  |
| 3. Yes | 6. Yes | 9. Yes | 12. Yes | 15. No  |

**Ordered Pairs**

1. Domain:  $\{-4, -2, -1, 7, 9\}$ ; Range:  $\{-6, -5, 0, 1, 7\}$ ; Function? Yes
2. Domain:  $\{-7, -6, 3, 4\}$ ; Range:  $\{-2, 1, 2, 5\}$ ; Function? No
3. Domain:  $\{-1, 2, 4, 5, 7\}$ ; Range:  $\{-7, -5, -2, 6, 7\}$ ; Function? Yes
4. Domain:  $\{-7, -2, 4, 6, 9\}$ ; Range:  $\{-6, -1, 1, 9\}$ ; Function? Yes
5. Domain:  $\{-8, -5, -1, 3, 7\}$ ; Range:  $\{-3, -1, 0, 1\}$ ; Function? Yes
6. Domain:  $\{-8, -3, 3, 8\}$ ; Range:  $\{0, 5, 6, 8\}$ ; Function? No
7. Domain:  $\{-9, -8, -7, -6, -1\}$ ; Range:  $\{-9, 3, 5, 6, 8\}$ ; Function? Yes
8. Domain:  $\{0, 2, 3, 6\}$ ; Range:  $\{-3, 4, 5, 6, 8\}$ ; Function? No
9. Domain:  $\{-9, 0, 1, 8, 9\}$ ; Range:  $\{-5, 1, 3, 8, 9\}$ ; Function? Yes
10. Domain:  $\{-5, -4, -3, -1, 1\}$ ; Range:  $\{0, 1, 2, 4, 6\}$ ; Function? Yes

**Domain and Range Mapping Diagrams**

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. Yes | 3. Yes | 5. No  | 7. Yes |
| 2. Yes | 4. Yes | 6. Yes | 8. No  |

**Identifying Functions from Graphs**

- |        |        |        |
|--------|--------|--------|
| 1. Yes | 4. No  | 7. Yes |
| 2. Yes | 5. No  | 8. Yes |
| 3. Yes | 6. Yes |        |