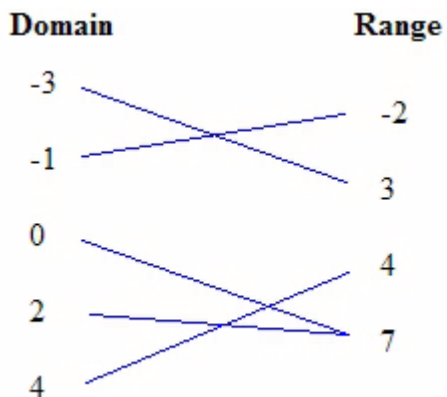
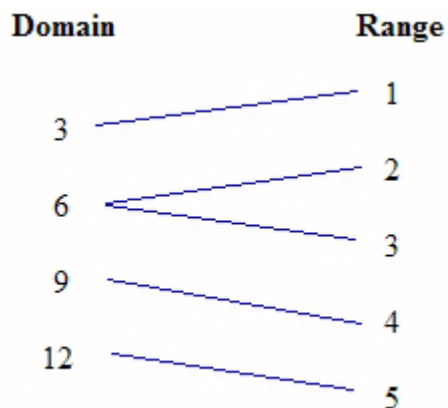


Name: _____ Date: _____

1. Does the diagram below represent a function?



2. Does the diagram below represent a function?



3. State whether the following relation is a function.

$$\{(6, 2), (7, 5), (9, 6), (6, -3), (7, -5)\}$$

4. State whether the following relation is a function.

$$\{(-3, 4), (0, 4), (1, 4), (4, 4), (5, 4)\}$$

5. Find the domain and range of the following function.

$$\{(2, 2), (6, 6), (-4, 6), (10, 10), (-5, 10)\}$$

6. Find the range of the function defined by the equation and the given domain.
 $f(x) = 7 - 5x - x^2$; $D = \{-3, 0, 3\}$

7. Given the function $f(x) = 4x^3 - 3$, find $f(2)$.

8. Given the function $s(t) = \frac{3}{4t - 4}$, find $s(-3)$.

9. Given the function $f(x) = 5x^2 - 2x - 4$, find $f(3)$.

10. Evaluate the transcript cost function $f(x) = 8 + 4(x - 1)$ for the specified input.
 $f(s + t)$

11. Evaluate the transcript cost function $f(x) = 3 + 2(x - 1)$ for the specified input.
 $f(v - w)$

12. Evaluate the parabolic function $f(x) = x^2 + x + 4$ for the specified input.
 $f(p - q)$

13. Evaluate the parabolic function $f(x) = x^2 + x + 4$ for the specified input.
 $f(p + q)$

Answer Key

1. Yes
2. No
3. Not a function
4. Function
5. D: $\{-5, -4, 2, 6, 10\}$; R: $\{2, 6, 10\}$
6. $\{13, 7, -17\}$
7. 29
8. $-\frac{3}{16}$
9. 35
10. $4s + 4t + 4$
11. $2v - 2w + 1$
12. $p^2 - 2pq + q^2 + p - q + 4$
13. $p^2 + 2pq + q^2 + p + q + 4$