1. Which expression represents the phrase "twice the sum of a number and three"?

A   2(x + 3)
B   2x + 3
C   3 + 2x
D   x + 3(2)

2. If f(x) = (x − 5)² − 3x, list the range if the domain is {-1,0,1}.

3. Tell whether the equation has one has one, none, or infinite solutions:
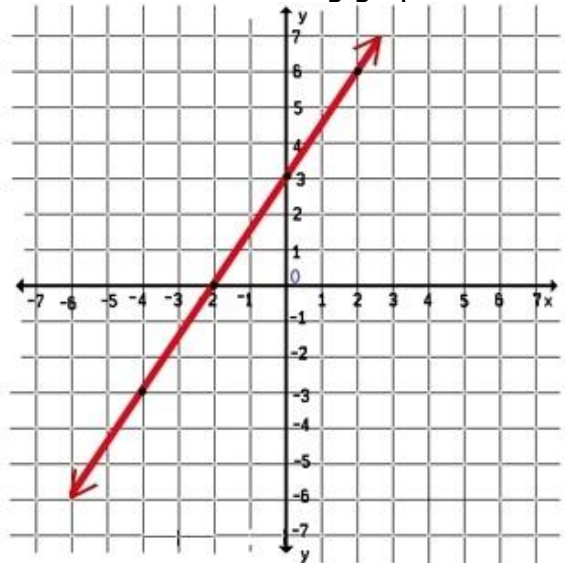
$$-5x + 10 = -3(2x - 7)$$

4. Find the slope between the following coordinates: (-4,7) and (-5,1)

5. Solve the following equation:

$$3x - 3 = \frac{11x + 1}{4}$$

6. Observe the following graph.



Is the following graph a function? Why or why not?

What is the domain?

What is the range?

What is the slope?

7. What is the value of the following:

$$3\sqrt{72} - \sqrt{50}$$

8. Simplify the radical.

$$\sqrt{512}$$

9. Students were asked to write two equations that represented the same formula. Which student incorrectly completed the assignment?

| Student | Equation 1 | Equation 2 |
|---|---|---|
| Darren | $T = c + p$ | $p = T - c$ |
| Julie | $l = \dfrac{V}{wh}$ | $h = \dfrac{V}{lw}$ |
| Brenda | $t = \dfrac{D}{r}$ | $D = rt$ |
| Harold | $b = \dfrac{2A}{h}$ | $h = \dfrac{2b}{A}$ |

10.
What is the solution for *h* in the following equation?

$$V = \frac{1}{3}\pi r^2 h$$