

1. No, doesn't pass the VLT.

3. Yes, passes the VLT.

5. D: $\{-4, -2, 0, 3, 6\}$ R: $\{-5, -1, 0, 1, 5\}$ Yes, passes the VLT.

7. D: $\{-3, -1, 0, 2, 3\}$ R: $\{-2, -1, 0, 4\}$ Yes, only one output for each input.

9. D: $\{-6, -5, 0, 4\}$ R: $\{-2, 0, 1, 3, 7\}$ No, one input has more than one output.

11. $g(6) = 38$

17. $f(12) = 23$

23. 2

13. $h\left(\frac{1}{3}\right) = -11$

19. $f(-2) = -5$

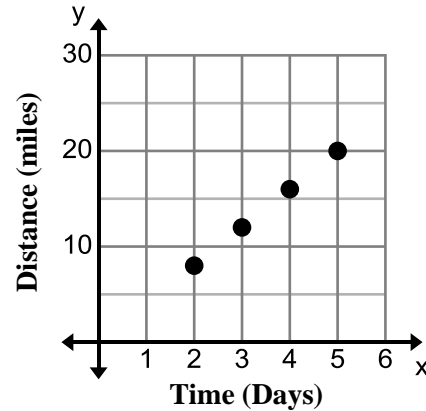
21. $f(-6) = -13$

15. $g(-5) = -17$

25. #24 has a greater rate of change. $3 > 2 > \frac{4}{3}$

27. a.

x	y
2	8
3	12
4	16
5	20



b. $y = 4x$

29. a.

x	y
0	5
1	5.5
3	6.5

b. $y = 0.5x + 5$

c. The plant grows 0.5 inches per month.

d. When John bought the plant it was 5 inches tall.

31. a. Mark has a rate of change of 2 points per basket and an initial value of 3 points that his dad gave him.

Dad has a rate of change of 2 points per basket and an initial value of 0 points.

b. 43 points

33. Non-Linear

35. Linear

37.

$y = 7 - 2x$	$y = x^2 + 7$	$y = \frac{x}{5} + 7$	$y = 7$	$5x + 7y = 10$	$y = x + 7$
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39. *Sample Answers:*

- a. She stopped for lunch
- b. She walked back towards camp for a short time
- c. increased, the graph is going uphill

41. $\frac{1}{4}n - 60 = 8; n = 272$

43. $\frac{n}{10} + 14 = 6; n = -80$

45. Equation: $5(x - 2.5) + 3x = 35.50$

Solution: \$6.00