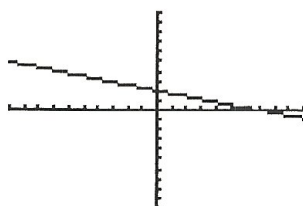
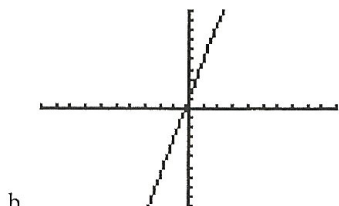
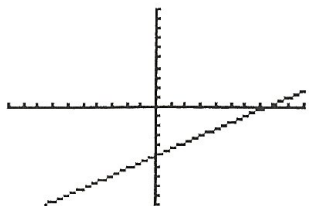


Answers

1.



a.

b.

c.

2. a. $-5 \leq x < 3$ b. $2 < x \leq 3$ c. $x < -\frac{3}{2}$ or $x > 3$ d. $x < -5$ or $x \geq 1$

3. $x = -3$

4. $y = 1.86x + 55.38$; 181.86

5. a. $x \leq -3$ or $x \geq 5$ b. $-4 \leq x \leq 8$ c. $x < 2$ or $x > 2$ d. no solution

6. a. $n = \frac{S+360}{180}$ b. $p = \frac{2A}{r}$ c. $w = 5z^3 - L$

7. a. Commutative b. Distributive c. Associative

8. a. $-24x^6$ b. $3ab^4c$ c. $-6x^3y^4$

9. a. $\frac{-6x^6}{y^4}$ b. $\frac{b^{10}}{10a^8}$

10. a. 14 b. -1

11. a. D: {4,5,6} R: {1,2,3} b. D: {0,1.5,2.5} R: {0}

12. a. No b. yes

13. Vertical line test; Horizontal line test

14. D: $\{x / -7 \leq x \leq 10\}$ R: $\{y / -4 \leq y \leq 4\}$

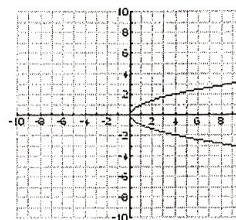
15. $g(g(x)) = 3x + 4$

16. $f(g(x)) = 2x^2 + 4$

17. $f(g(x)) = \frac{x+2}{3}$

18. $f(g(x)) = \frac{x-1}{5}$

19.

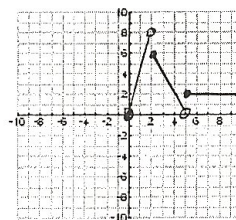


20. a. left 5 units, down 1 unit

b. right 2 units, up 6 units

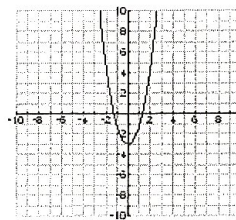
21. True

22.

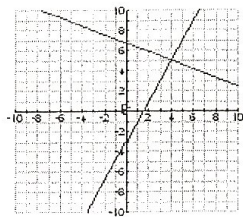


23. Vertical line test; Horizontal line test

24.



25.

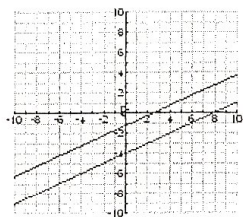


Solution: (4, 5)

26. Consistent and independent

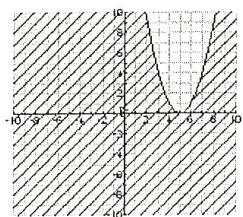
27. (-1, 4)

28.



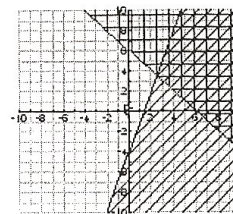
No solutions ; inconsistent

29.



30. $y \geq \frac{1}{2}x - 3$

31.



32. $\begin{bmatrix} -11 & 9 \\ 12 & 16 \end{bmatrix}$

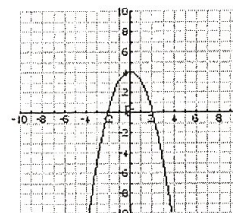
33. 38

34. $\begin{bmatrix} \frac{1}{12} & \frac{5}{24} \\ \frac{1}{4} & -\frac{1}{8} \end{bmatrix}$

35. $x = -2, y = 4, z = 5$

36. $x = 2.5, x = -2.5$

37.



38. $x = 6, x = -4$

39. $\frac{-3 \pm \sqrt{137}}{8}$

40. Determinant ~~24~~; 2 real solutions

41. $1 + 5i$

42. $\frac{7-4i}{5}$

43. $\sqrt{41}$

44. 25

45. 334,960 people

46. \$2796.75

47. 1.7712

48. $\log_a(x^4y^3)$

49.

