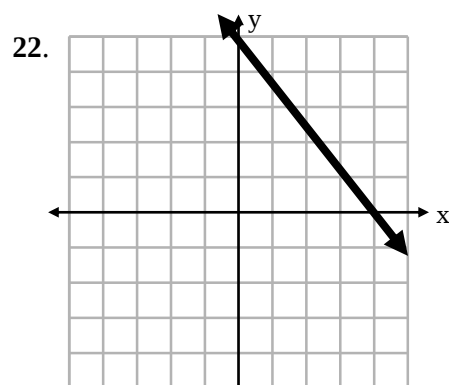
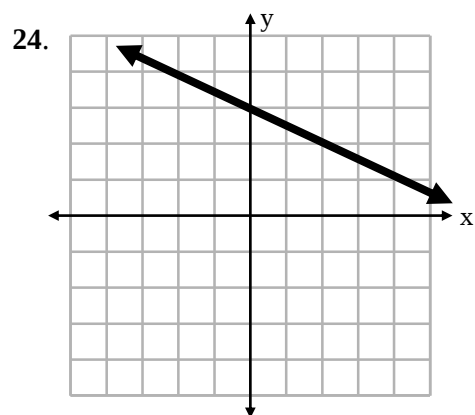


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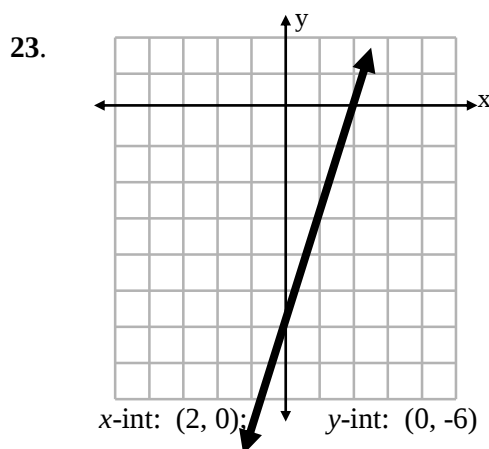
1. 5
2. 4
3. -19
4. $\frac{x^3}{16}$
5. x^9
6. 29
7. 0.00003113
8. 1,201,000,000
9. 8.7×10^7
10. 1.7×10^{-5}
11. $x = 2$
12. $x = 7$
13. $x = -4$
14. The number is 43.
15. The lengths of the pieces are 15 inches, 32 inches, and 40 inches.
16. The architect worked 27 hours.
17. They should enroll 2024 students.
18. The student needs 98% or better on test 4 to earn a B in the course.
19. It is 225 miles from the starting point.
20. $\{x \mid x > -150\}$, $(-150, \infty)$
21. $\left\{x \mid x \geq -\frac{8}{7}\right\}$, $\left[-\frac{8}{7}, \infty\right)$



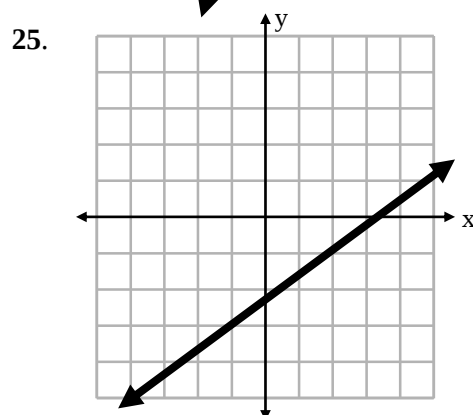
x-int: (4, 0); y-int: (0, 5)



Slope: $-\frac{1}{2}$; y-int: (0, 3)



x-int: (2, 0); y-int: (0, -6)



point on graph: (2, -1), (-4, -5), (5, 1), + others

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26. $y = 3x + 11$

27. $y = 2x - 10$

28. $x = -7$

29. $y = -1$

30. $-2x^2y + 5xy + 4xy^2 + 10$

31. $-x - 17xy + 32$

32. $21a^6b^3 + 3a^4b^3 - 12a^4b$

33. $-6y^2 - 10y + 4$

34. $6y^5 - 9y^4 + 33y^3$

35. $x^2 - 81$

36. $(m+6)^2$

37. $(p-10)(p+10)$

38. PRIME

39. $(t+5)(t-3)$

40. $(2v-3)(v+1)$

41. $2x(x+3)(x+1)$

42. a. 21; b. 3; c. 1; d. $2\sqrt{2}$

43. a. $6\sqrt{2}$ b. $2\sqrt{10}$ c. $\sqrt{34}$ d. $10\sqrt{7}$

44. The dimensions of the garden are 10 ft x 14 ft

45. $t = \pm \frac{1}{2}$

46. $x = \frac{5}{3}, x = -2$

47. $x = \frac{1}{4}, x = -\frac{1}{2}$

48. $w = \frac{P-2l}{2}$ or $w = \frac{P}{2} - l$

49. The tree is 120 feet tall.

50. $BC = 2\sqrt{11} \text{ cm}$

51. The ladder will reach 12 feet up the wall.

52. $A = 46 \text{ sq in}$ $P = 32 \text{ in}$

53. $A = 9\pi \text{ sq ft}$ $C = 6\pi \text{ ft}$

54. $16\frac{1}{3}$ feet or 16 feet and 4 inches

55. $\frac{3}{x^6}$

56. $\frac{1}{b^{14}}$

57. $\frac{1}{9x^6}$

58. slope: $-\frac{4}{3}$; y-int (0, 2)

59. slope: $\frac{3}{2}$; y-int $(0, -\frac{5}{2})$

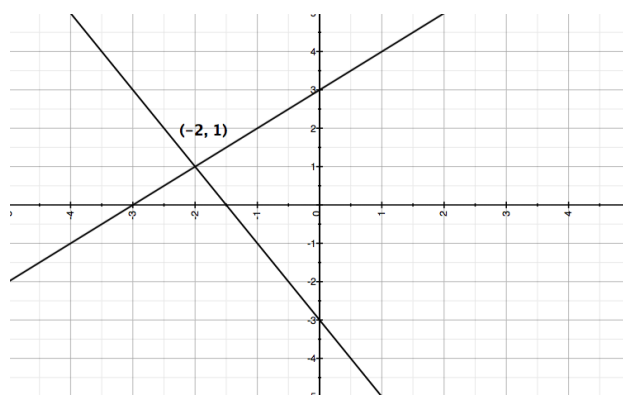
60. slope: $\frac{8}{5}$; y-int (0, 6)

61a. Her account is decreasing at a rate of \$650 per month. OR -\$650/month

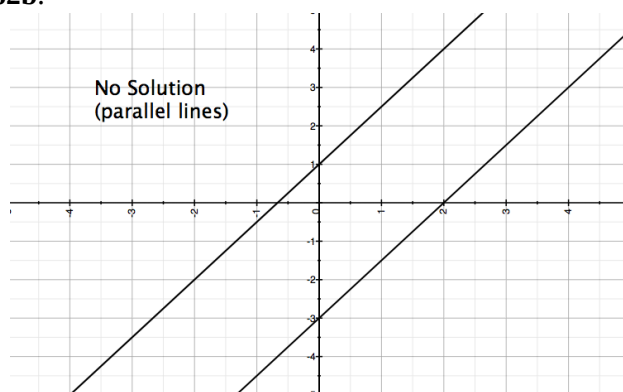
61b. $y = -650x + 10400$

61c. She will run out of money in 16 months

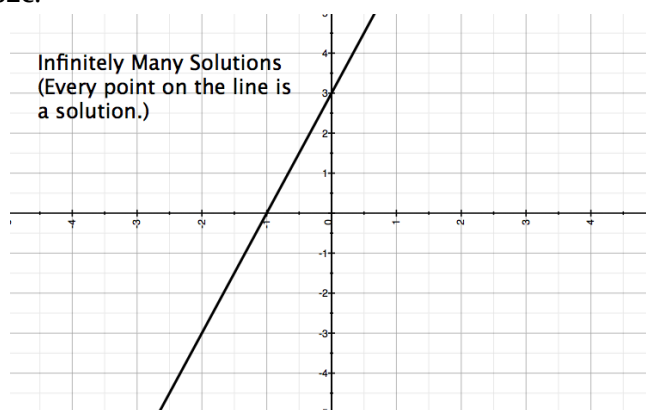
62a.



62b.

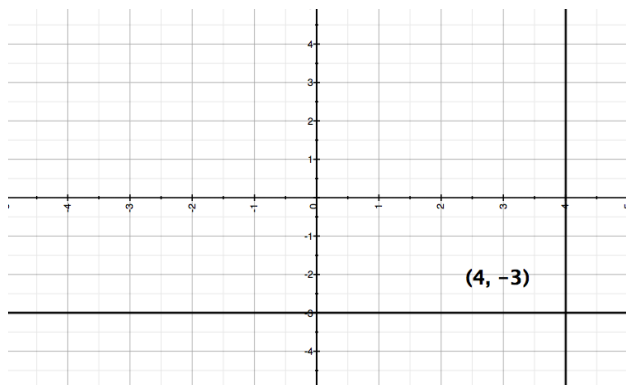


62c.



62d.

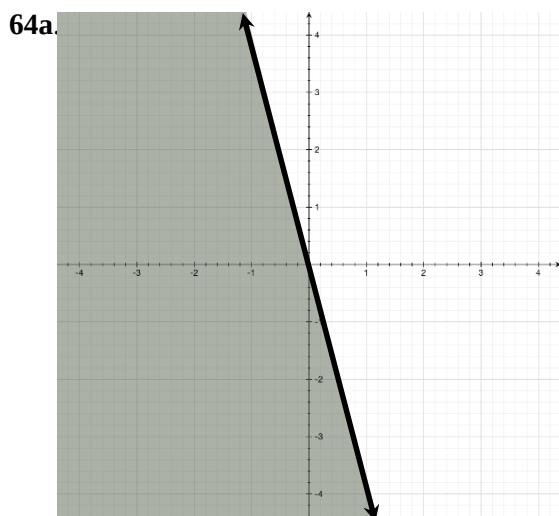
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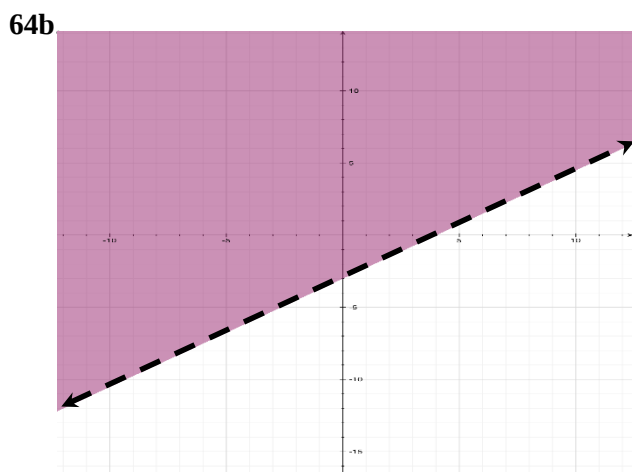
63a. $(-\infty, 1)$

63b. $(-\infty, -6]$

63c. $(-12, -6]$

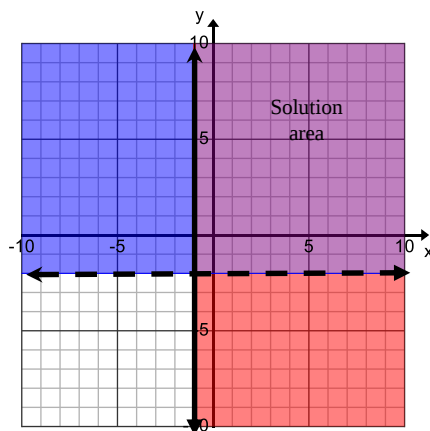


(Borderline is a solid line)

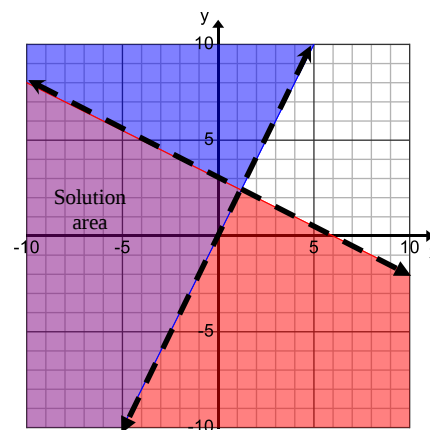


(Borderline is a dotted line)

65a.



65b.



66a. $\frac{1}{2}, -\frac{1}{3}$

66b. $\frac{1 \pm \sqrt{17}}{2}$

67a. -4, -10, -16, -22, -28

67b. -1, -8, -27, -64, -125

67c. -7, 9, -11, 13, -15

68a. 157

68b. 57

69. 7000, 6680, 6360, 6040

$$a_n = 7320 - 320n$$

The balance is \$1560 at the beginning of the 18th month.

70. 192, 96, 48, 24

$$a_n = 192 \left(\frac{1}{2} \right)^{n-1}$$

After the 8th bounce, the ball only rebounds $\frac{3}{4}$ ft.

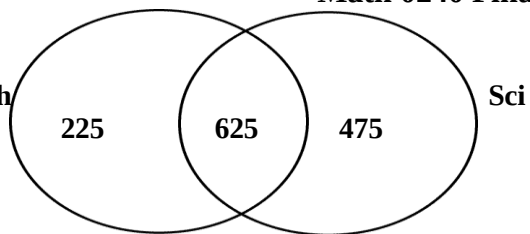
71a. $\frac{1}{125}$

71b. $\frac{49}{16}$

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72.

Math



- a. 225
- b. 1325

73. a. $A \cup B = \{m, a, t, h, y\}$

b. $A \cap B = \{m, t, h\}$

c. $A \cap C = \emptyset$