

South Plains College
Beginning Algebra (MATH 0315)
Review Objectives Answers

1. The opposite of -7 is 7. The reciprocal of -7 is $-1/7$.

2. The opposite of $\frac{1}{17}$ is $-\frac{1}{17}$. The reciprocal of $\frac{1}{17}$ is 17.

3. -8

4. -11

5. 6

6. -4

7. $\frac{3}{4}$

8. $\frac{4}{3}$

9. $\frac{1}{60}$

10. $-\frac{39}{44}$

11. -109

12. 17

13. -36

14. 1

15. 28

16. 60

17. 2

18. -42

19. -19

20. 14

21. $-z+2$

22. $\frac{11}{15}x$

23. $-5y^2+4y$

24. $-5x+1$

25. $-14x+3$

26. $\frac{29}{12}x+\frac{7}{6}$

27. $7+y$

28. $2(z+4)$

29. $4t-7$

30. $3x-\frac{6}{y}$

31. $\{-7\}$

32. $\{6\}$

33. $\{\frac{7}{2}\}$

34. $\{4\}$

35. no solution

36. $\{\frac{-13}{3}\}$

37. $\{-8\}$

38. 15

39. 16%

40. 35

41. $\{8\}$

42. {3}

43. $\left\{\frac{-9}{2}\right\}$

44. {7}

45. {6}

46. Identity; infinitely many solutions.

$$2(y-3)=10$$

47. $y=8$

48. 38, 40, 42, 44, 46

49. 87

50. \$700.92

51. \$450

52. \$97.50 for you and \$82.50 for your friend

53. \$59.58

54. 17 nickels, 12 dimes

55. The first car is traveling 55 mph and the second car is traveling 70 mph.

$$x \geq 7$$

56. $[7, \infty)$



$$x > 9$$

57. $(9, \infty)$



$$x > -6$$

58. $(-6, \infty)$



$$x > 5$$

59. $(5, \infty)$



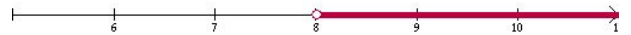
$$x \leq -1$$

60. $(-\infty, -1]$



$$x > 8$$

61. $(8, \infty)$

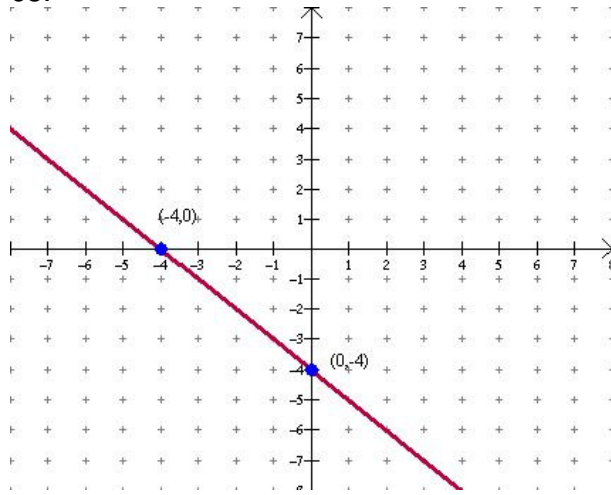


$$x < \frac{22}{3}$$

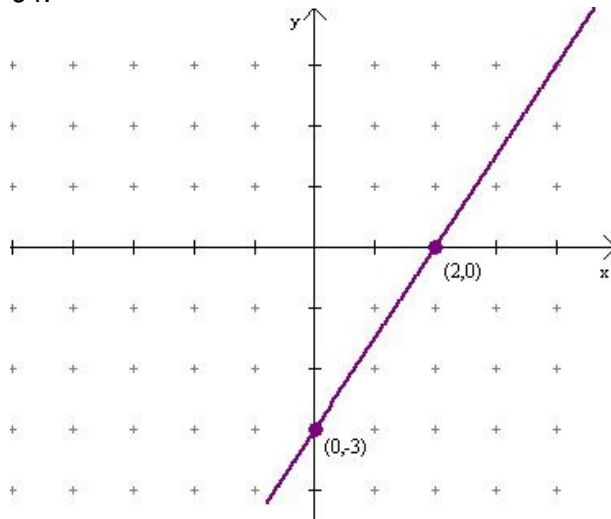
62. $(-\infty, \frac{22}{3})$



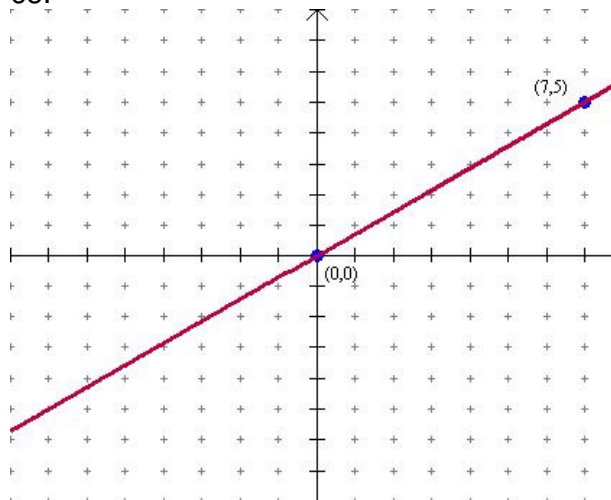
63.



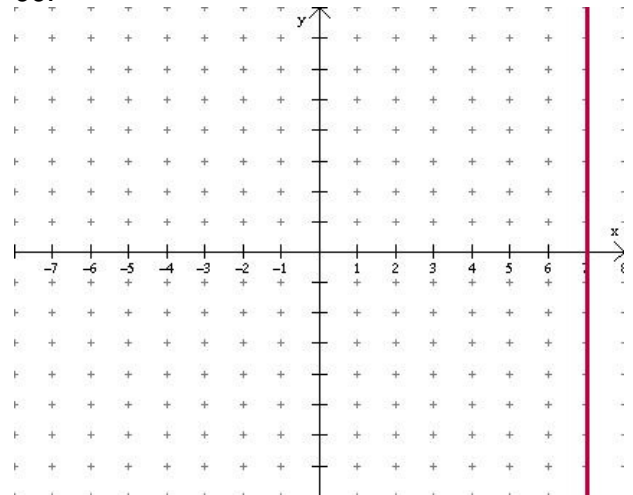
64.



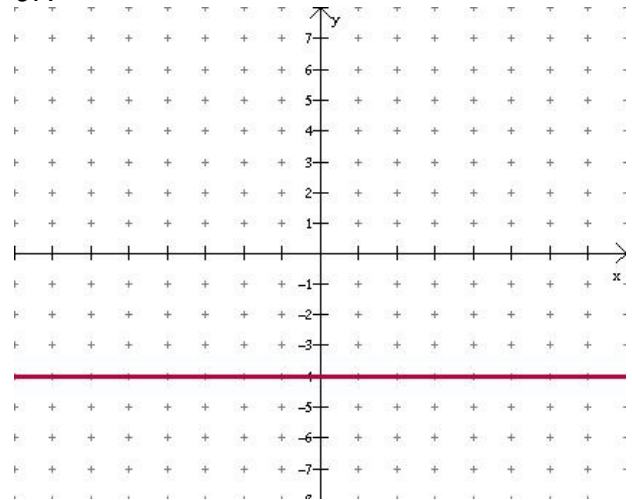
65.



66.



67.

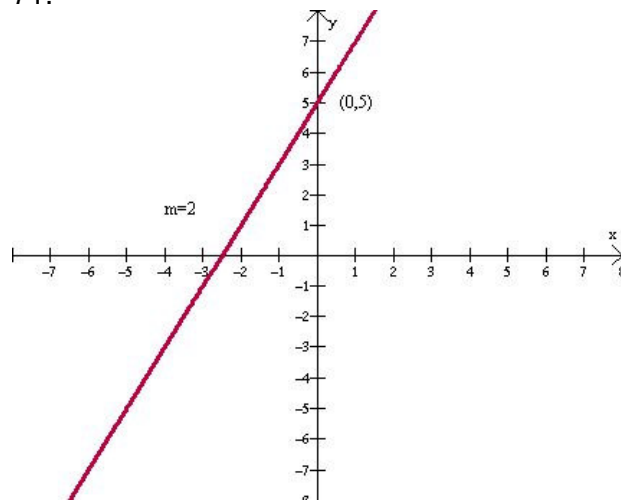


68. $m = \frac{-5}{3}$

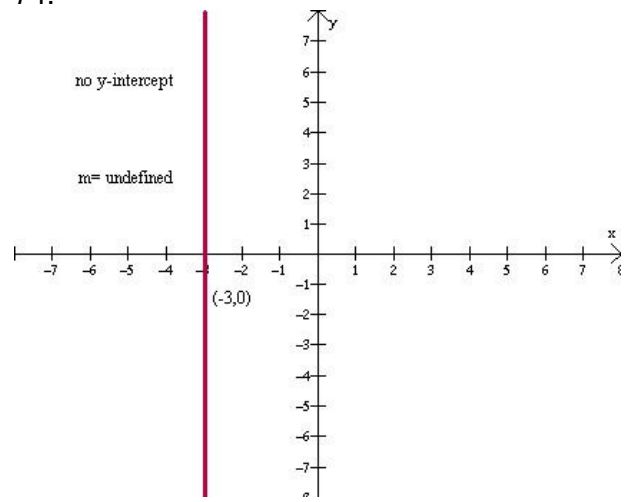
69. Slope is undefined

70. $m = 0$

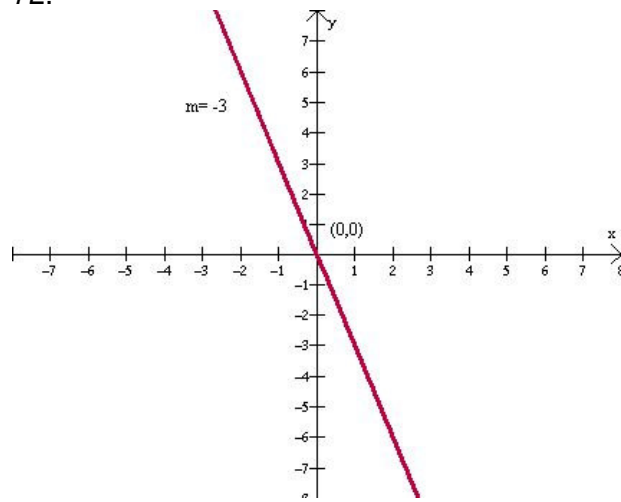
71.



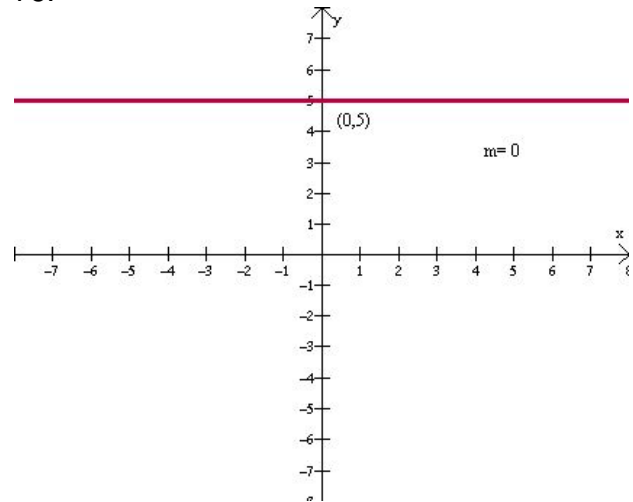
74.



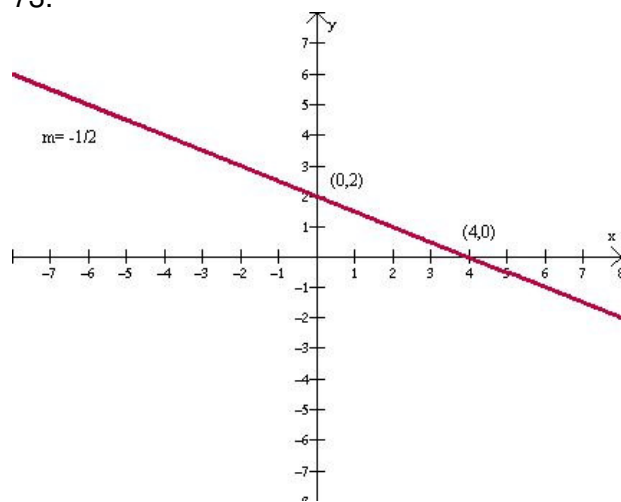
72.



75.



73.



76.

$$13z^8$$

77.

$$x^2 + 12x - 9$$

78.

$$9y^3 - 8y^2 + 10$$

79.

$$a^{10}$$

80.

$$15y^8$$

81.

$$12w^7$$

82.

$$4^3 \text{ or } 64$$

83.

$$3rs$$

- | | | | |
|------|---|------|------------------------------|
| 84. | $\frac{49a^4b^2}{c^6}$ | 104. | $6m^2n(3m^2 + 4n - 2mn^3)$ |
| 85. | $\frac{1}{m^2}$ | 105. | $(2b+7)(3a-5)$ |
| 86. | $\frac{x^4}{y^4}$ | 106. | $(x+y)(14+a)$ |
| 87. | $\frac{t^{10}}{324x^5}$ | 107. | $(x+2)(8x^2-5)$ |
| 88. | $-12x^3y^5$ | 108. | $(x+4)(x+9)$ |
| 89. | $6x^3 - 15x^2 + 3x$ | 109. | $(x+8)(x-7)$ |
| 90. | $x^2 + 10x + 21$ | 110. | $(x+3y)(x+8y)$ |
| 91. | $3x^2 - 7x - 20$ | 111. | $-3(p+2)(p+5)$ |
| 92. | $15a^2 - 14ab - 16b^2$ | 112. | $(3q+2)(q+2)$ |
| 93. | $x^3 + 7x^2 + 19x + 21$ | 113. | $(5x+2)(5x+7)$ |
| 94. | $x^2 - 16$ | 114. | $3(3x-2)(2x+1)$ |
| 95. | $4y^2 - 20y + 25$ | 115. | $(3x-2y)(x+2y)$ |
| 96. | $16x^2 - 25y^2$ | 116. | $-3x(x-2)(x-6)$ |
| 97. | $16x^2 + 2x + \frac{1}{16}$ | 117. | prime |
| 98. | $\frac{3}{8} + \frac{z^2}{2} - \frac{z}{4}$ | 118. | $(x-3)(x+3)$ |
| 99. | $x - 3 + \frac{2}{x}$ | 119. | $(6m - 5n)(6m + 5n)$ |
| 100. | $x - 7$ | 120. | prime |
| 101. | $2x^3 + 5x^2 + 9x - 4 + \frac{-17}{x-4}$ | 121. | $(x-3)^2$ |
| 102. | $5(x+3)$ | 122. | $(4y-9)^2$ |
| 103. | $9x(3x+1)$ | 123. | $(2x+1)(4x^2 - 2x + 1)$ |
| | | 124. | $(2x-3y)(4x^2 + 6xy + 9y^2)$ |
| | | 125. | $\{-9, 7\}$ |
| | | 126. | $\{\frac{-7}{3}, 2\}$ |

127. $\{-3,10\}$

128. $\{-5,10\}$

129. $\left\{\frac{-5}{4}, \frac{5}{4}\right\}$

130. $\{-8,8\}$