

Final Exam Packet Answer Key

1.
 - a. $x = 60^\circ$
 - b. $x = 30^\circ$
 - c. $x = 75^\circ$
 - d. $x = 60^\circ$
2. $x = 35$
3. $x = -12$
4. $x = 144$
5. $12\frac{5}{24}$
6. $2\frac{13}{15}$
7. $\frac{-25}{3}$ or $-8\frac{1}{3}$
8. Classic 60 blueberry :20 sugar
Homestyle 60 blueberry : 15 sugar
Country 60 blueberry: 21 sugar
Country has the most sugar per 60 cups of blueberries
9. $22x + 121$
10. 17
11. 28
12. 45
13. $x = 34^\circ$
14. $x = 15$
15. $x = -13$
16. $x = 25$
17.
 - a. Robert and Ashley (they have same rate)
 - b. Carl and Ashley (they have a y int of 0)
 - c. Rate: 6y int: 5
 - d. Rate: 6 y int: 0
18. 200 seconds or 3 minutes 20 seconds
19.
 - a. Yes
 - b. -4
 - c. no
20.
 - a. Answers vary
 - b. 7.5
 - c. No $a + b + c > d$
21.
 - a. 64.3 m
 - b. 107.1 m
 - c. 560 m
22. 64.855
23. 42.3
24. $10\frac{14}{15}$
25. $x = \frac{11}{3}$ or $3\frac{2}{3}$
26. $x = 5$
27. $x = 4$
28. $3x - 15$
29. $3x + 15$
30. $-10x + 15$
31. $7x - 2$
32. 0.625
33.
 - a. 30
 - b. 75%
 - c. 25%
 - d. 5 and 49
 - e. No, 27 is within the second quartile so there is no way to tell from the graph.
 - f. Yes, 4 is below the minimum on the graph.
34. Turner 20:1 Green 25:1
35. 4.1 cm
36. $x = 3\frac{8}{9}$
37. $x = 42$
38. $x = 44$
39. $\frac{2}{5}$
40. $\frac{9}{4}$ or $2\frac{1}{4}$
41. -6
42. 23.4
43. $66\frac{2}{3}\%$

44. 9

45. C = \$205

46.

- a. 4
- b. -20
- c. -14
- d. -100
- e. -7
- f. 10
- g. 0
- h. 6

47. $3s - 7$

48. A

49. 19:25

50.

- a. $a < -8$
- b. $y > -9$
- c. $k \leq 1$
- d. $m \leq 54$

51. It would not be as steep because it is a lower rate.

52. Positive

53. $\frac{1}{3}$

54. Joey: $d = 3t$ Kurt: $d = 4t - 8$

55. 225 cm^2

56. $\frac{7}{9}$

57. $\frac{15}{4}$ or $3\frac{3}{4}$

58. $\frac{13}{15}$

59. $\frac{1}{6}$

60. $c = \$1350$

61. Table 1

62. II

63. $\frac{1}{12}$

64. Game 4

65. $x = 9$

66. $x = -\frac{1}{2}$

67. $x = 16$

68. $13\frac{3}{11}$

69. $\frac{15}{7}$ or $2\frac{1}{7}$

70. -39

71. 12.727

72. 2.531

73. -2.3

74.

75. a: \$0.27

b: \$0.26

c: \$0.24 Best unit price

d: \$0.25

76. $5\frac{5}{11}$

77. $5\frac{1}{4}$

78. 45

79. 62.5%

80. 80

81. 40

82. 1800°

83. 30 feet

84. 2.5

85. \$35.40

86. \$34.95

87. $\frac{18 \text{ oz}}{6 \text{ bottles}} = \frac{x}{24 \text{ bottles}}$ $x = 72 \text{ oz.}$

88.

- a. 36
- b. 50
- c. 351
- d. 36
- e. 10.5
- f. 3

89. 31.25

90. 20%

91. 135°

92. 60°

93. 28