

Summer Packet Answers

PART 6:

51. Set-up a proportion!

$$\frac{1.5 \text{ cups of flour}}{24 \text{ pancakes}} = \frac{x}{8 \text{ pancakes}}$$

$$\frac{24x}{24} = \frac{12}{24}$$

$$x = \frac{1}{2} \text{ cup of flour}$$

52. 1 Tablespoon = 3 teaspoons = 180 cal

X teaspoons = 75 cal

Setup a proportion $\frac{3}{180} = \frac{x}{75}$

$$\frac{180x}{180} = \frac{225}{180}$$

$$x = 1.25 \text{ teaspoons}$$

53. $\frac{3}{8} + \frac{1}{2}$

$$\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$$

54. $\frac{2}{5} + \frac{3}{10} - \frac{1}{2}$

$$\frac{4}{10} + \frac{3}{10} - \frac{5}{10} = \frac{2}{10} = \frac{1}{5}$$

$$55. \frac{11}{12} - \frac{7}{8} = \frac{22}{24} - \frac{21}{24} = \boxed{\frac{1}{24}}$$

$$56. \frac{1}{2} \cdot \frac{2}{5} + \frac{3}{4} \cdot \frac{2}{3} = \frac{2}{10} + \frac{6}{12} = \frac{12}{60} + \frac{30}{60} = \frac{42}{60} = \boxed{\frac{7}{10}}$$

$$57. 2\frac{2}{7} - \frac{1}{2}$$

$$\frac{16}{7} - \frac{1}{2}$$

$$\frac{32}{14} - \frac{7}{14}$$

$$\boxed{\frac{25}{14}}$$

$$58. -\frac{2}{3} + \frac{5}{11} = \frac{-22}{33} + \frac{15}{33} = \boxed{\frac{-7}{33}}$$

$$59. \frac{2}{3} \cdot \frac{1}{9} = \boxed{\frac{2}{27}}$$

$$60. \frac{1}{2} \cdot \frac{2}{7} \cdot \frac{-1}{5} = \frac{-2}{70} = \boxed{\frac{-1}{35}}$$

$$61. 1\frac{11}{13} \cdot \frac{2}{3} = \frac{24}{13} \cdot \frac{2}{3} = \frac{48}{39} = \boxed{\frac{16}{13}}$$

$$62. \frac{3}{4} \div \frac{1}{7}$$

$$\frac{3}{4} \cdot \frac{7}{1} = \boxed{\frac{21}{4}}$$

$$63. \frac{8}{9} \div 2$$

$$\frac{8}{9} \cdot \frac{1}{2} = \frac{8}{18} = \boxed{\frac{4}{9}}$$

$$64. 3 \div \frac{2}{5}$$

$$\frac{3}{1} \cdot \frac{5}{2} = \boxed{\frac{15}{2}}$$

PART II:

$$65. \frac{y_2 - y_1}{x_2 - x_1} = \frac{13 - 7}{-3 - 9} = \frac{6}{-12} = \boxed{\frac{-1}{2}}$$

$$66. \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 5}{14 - (-4)} = \frac{0}{18} = 0$$

$$67. \boxed{-1 = \text{slope}} \quad 68. \frac{-8y}{-8} = \frac{9 - 5x}{-8 - 8} \quad 69. \frac{7x}{+4} = \frac{y - 4}{+4}$$

$$70. x = 3$$

$\boxed{\text{slope} = \text{undefined}}$

$$y = \frac{-9}{8} + \frac{5x}{8}$$

$$\boxed{\frac{5}{8} = \text{slope}}$$

$$\frac{7x + 4}{+4} = \frac{y}{+4}$$
$$\boxed{\text{slope} = 7}$$

$$71. \text{X-intercept} = (2, 0)$$
$$\text{y-intercept} = (0, -3)$$

$$72. \text{X-intercept} = (1, 0)$$
$$\text{y-intercept} = (0, 5)$$

73. parallel lines have the SAME SLOPE
 $\boxed{\text{slope} = -\frac{1}{2}}$

74. perpendicular lines have opposite reciprocal slope.
 $\boxed{\text{slope}_\perp = \frac{1}{9}}$

75. Graph $y = -\frac{1}{5}x - 2$

$$\text{slope} = -\frac{1}{5}$$

y-intercept $(0, -2)$

76. Horizontal Line through -9

Summer Packet Answers

PART I

GCF (left overs)

77. $5x(x+2)$

78. $10xy(2x^2+1-3y)$

79. $3x^2y^3(1+2xy+3x^2y^2)$

$(x - \#)(x + \#)$

80. $(x-3)(x+3)$

81. $(x-7)(x+7)$

82. $(2x-3)(2x+3)$

83. $(x-5)(x+2)$

84. $(x+6)(x+2)$

85. $(x-8)(x-3)$

86. GCF and differences of squares

$$2(x^2-25)$$

$$\boxed{2(x-5)(x+5)}$$

87. GCF, then factor

$$3y(x^2-5x-6)$$

$$\boxed{3y(x-6)(x+1)}$$

88. GCF, then differences of squares

$$\boxed{5y(x-4)(x+4)}$$

Part J

89. $8x^5y^4$

90. $256m^4n^8$

91. $\frac{4a^3b}{3}$

92. y^6

93. $81m^{12}n^0$ or $81m^{12}$

94. $\frac{1u^2}{2v^2}$

95. $4v^4$

96. $16a^7$

97. wv