

Name \_\_\_\_\_  
Math Teacher \_\_\_\_\_

**Finance**  
**(Advanced Algebra with Financial Applications)**  
**Summer Packet**  
**Port Charlotte High School**

Many topics that we will study next year in your Finance class build on topics that you have already learned in previous classes. Since many of you may have been away from these ideas for a period of time, you might need a refresher in order to be up to speed at the beginning of the course. We have chosen a selection of topics for you to cover during the summer. Please understand that they are not all the areas that we will expect you to know.

Do all work for these problems in PENCIL. Show work when applicable. If you are unfamiliar with a term or type of problem, refer back to your notes or go online to various help sites for mathematics (see below). The skills covered are part of the foundation for your course. Mastery of these skills is assumed.

Have this work ready for the first day of class. This packet will be collected. At the end of the first week, you will be tested on this review material.

NO CALCULATORS OF ANY KIND MAY BE USED FOR MOST PROBLEMS IN THIS PACKET. Only problems 107 – 112 may require a calculator.

We look forward to working with you next year!

Free online math help sites:

[www.math.com/homeworkhelp/Algebra.html](http://www.math.com/homeworkhelp/Algebra.html)

<http://www.algebra-help.info/>

<http://www.algebrahelp.com/>

**Summer Packet**

© 2011 Kuta Software LLC. All rights reserved.

**Evaluate each expression.**

1)  $(-2) - 3\frac{5}{8}$

2)  $\frac{1}{2} + \left(-1\frac{4}{5}\right)$

3)  $\left(-\frac{1}{2}\right) - \left(-1\frac{3}{4}\right)$

4)  $\left(-\frac{3}{2}\right) - \frac{1}{7}$

5)  $1 - 2\frac{3}{5}$

6)  $\left(-\frac{3}{4}\right) - \left(-1\frac{4}{5}\right)$

7)  $\left(-\frac{6}{7}\right) - \left(-\frac{7}{4}\right) - \left(-\frac{1}{6}\right)$

8)  $\frac{1}{7} + \left(-\frac{5}{3}\right) - \left(-\frac{7}{4}\right)$

9)  $2 - \frac{5}{6} + 4\frac{1}{4}$

10)  $\frac{8}{5} + 4\frac{5}{6} + \left(-\frac{4}{3}\right)$

**Find each product.**

11)  $\left(-3\frac{5}{7}\right)\left(\frac{7}{6}\right)$

12)  $\left(-1\frac{9}{10}\right)\left(-\frac{8}{5}\right)$

13)  $\left(4\frac{1}{4}\right)\left(-\frac{1}{5}\right)$

14)  $(-2)\left(\frac{10}{7}\right)$

15)  $\left(3\frac{1}{3}\right)\left(-\frac{4}{5}\right)$

16)  $\left(-2\frac{2}{5}\right)\left(-\frac{2}{5}\right)$

**Find each quotient.**

17)  $\frac{-11}{8} \div 5$

18)  $\frac{-1}{2} \div \frac{1}{5}$

19)  $-2\frac{2}{5} \div -3\frac{3}{4}$

20)  $-3\frac{2}{3} \div \frac{1}{4}$

21)  $\frac{-1}{5\frac{1}{4}}$

22)  $\frac{5\frac{7}{8}}{-5\frac{2}{3}}$

**Find each product.**

23)  $(-3)(-10)$

24)  $(-7)(3)$

25)  $(-4)(-4)$

26)  $(8)(-2)$

27)  $(-5)(-3)$

28)  $(6)(-1)$

**Find each quotient.**

29)  $72 \div 9$

30)  $-36 \div -9$

31)  $-35 \div -5$

32)  $-20 \div -2$

33)  $42 \div 7$

34)  $12 \div 4$

**Simplify each expression.**

35)  $(4 + 5x) + (7 + 3x)$

36)  $(2r^4 + 1) - (3r^4 - 4)$

37)  $(8b^3 + 6) + (1 + b^3)$

38)  $(6v^3 + v^4) - (5v^4 - v^3)$

**Simplify. Your answer should contain only positive exponents.**

39)  $7x^2 \cdot x^3$

40)  $8nn^4$

41)  $7m^3 \cdot m$

42)  $4r^4 \cdot r^3$

**Find each product.**

43)  $8(6x + 8)$

44)  $4n(8n - 4)$

45)  $4(2b + 7)$

46)  $7(5v - 1)$

47)  $3(6x - 2)$

48)  $4n(7n - 2)$

49)  $(8v - 5)(v - 7)$

50)  $(6a + 7)(3a - 3)$

51)  $(3x + 1)(x + 5)$

52)  $(5x - 2)(7x - 8)$

**Evaluate each expression.**

53)  $\left(-\frac{15}{(-6) - (-1)}\right)(2)$

54)  $(4 - (4 + 4))(-1)$

55)  $((-7) - 2 - 3)(-8)$

56)  $\frac{(-5) - 5}{(-4) + 2}$

57)  $-\frac{(3)2}{8 - 6}$

58)  $-\frac{14}{1 - (-6) - 9}$

**Write each as a decimal. Round to the thousandths place.**

59) 64%

60) 30.6%

61) 46.8%

62) 75%

63) 40%

64) 255%

**Write each as a fraction. Be sure to reduce.**

65) 36%

66) 50%

67)  $59.\overline{59}\%$

68) 40.4%

**Write each as a percent.**

69)  $\frac{3}{4}$

70)  $\frac{16}{33}$

71)  $\frac{2}{3}$

72)  $\frac{1}{4}$

**Solve each equation.**

73)  $-15 + b = -22$

74)  $v + 14 = -5$

75)  $\frac{n}{6} = 19$

76)  $16 = x + 7$

77)  $7 + \frac{a}{4} = 5$

78)  $\frac{-3 + n}{2} = -11$

79)  $-13 = \frac{v}{2} - 8$

80)  $-2 = \frac{x}{5} - 4$

81)  $-17 = -9 + 4x$

82)  $2n - 5 = 31$

83)  $36 = -6(-6 - 3k)$

84)  $80 = 8(-6p - 2)$

85)  $80 = 5(2x + 8)$

86)  $17 = -7 + 2(4 - 8n)$

87)  $7(7 - 6m) = -35$

88)  $1 = -7 + 4(-7r - 5)$

89)  $-2(n - 2) = n + 22$

90)  $-3(x - 7) = -6x + 24$

91)  $-2b - 28 = 6(-b - 6)$

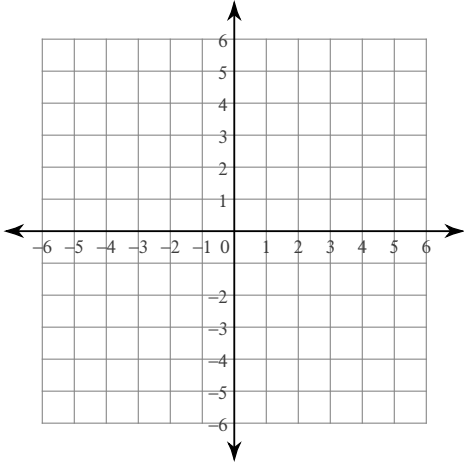
92)  $-6(1 + 8v) = 6v - 6$

93)  $-6 - 6n = -6(1 + n)$

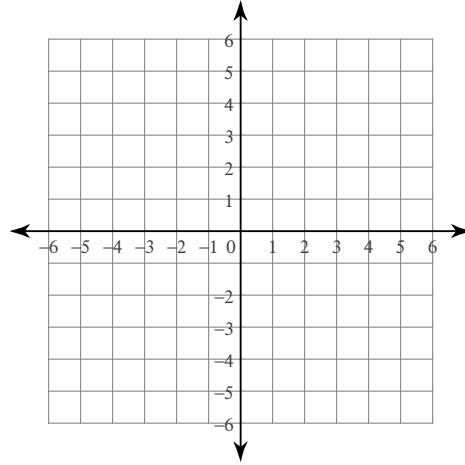
94)  $-7x + 6(2 + 5x) = -30 + 2x$

Sketch the graph of each line.

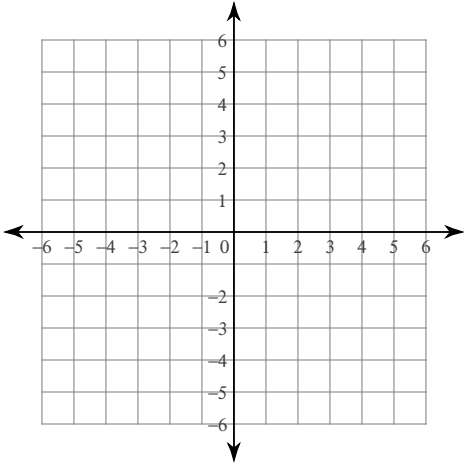
95)  $y = \frac{2}{3}x - 3$



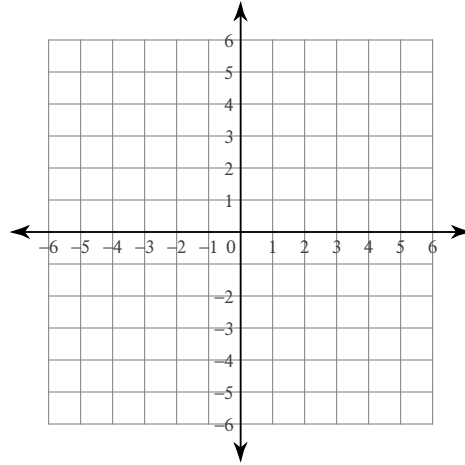
96)  $y = -\frac{5}{4}x$



97)  $4x - y = -3$



98)  $2x + y = 1$



Find the slope of the line through each pair of points.

99)  $(-2, 7), (-2, -5)$

100)  $(-15, -14), (-14, -13)$

101)  $(-19, 15), (18, 1)$

102)  $(10, -5), (8, -16)$

Find the slope of each line.

103)  $y = -x$

104)  $y = -\frac{2}{5}x - 1$

105)  $y = 1$

106)  $4x - y = 0$

Solve each problem.

107) 16% of 13 is what?

108) 200% of 105 is what?

109) 380% of 94 is what?

110) 29% of what is 58?

111) 145.5 is 37% of what?

112) 62% of what is 112.9?

**Solve each proportion.**

113)  $\frac{x}{3} = \frac{5}{9}$

114)  $\frac{7}{6} = \frac{v}{7}$

115)  $\frac{8}{6} = \frac{n}{8}$

116)  $\frac{2}{8} = \frac{a}{10}$

**Write each number in scientific notation.**

117) 53000

118) 64.4

119) 0.076

120) 791

121) 0.0000907

122) 5.8

**Find each square root.**

123)  $\sqrt{9}$

124)  $\sqrt{0}$

125)  $\sqrt{100}$

126)  $\sqrt{49}$

127)  $\sqrt{16}$

128)  $\sqrt{1}$

**Evaluate each using the values given.**

129)  $p^2 + m$ ; use  $m = 3$ , and  $p = 6$

130)  $m + p^2$ ; use  $m = 5$ , and  $p = 3$

131)  $y - x^2$ ; use  $x = 2$ , and  $y = 5$

132)  $q - (2 - p)$ ; use  $p = 2$ , and  $q = 5$

133) You bought a magazine for \$5 and some erasers for \$4 each. You spent a total of \$17. How many erasers did you buy?

134) Amy had \$23 to spend on three raffle tickets. After buying them she had \$17. How much did each raffle ticket cost?

135) Trevon had some candy to give to his three children. He first took nine pieces for himself and then evenly divided the rest among his children. Each child received four pieces. With how many pieces did he start?

136) Julio rented a bike from James' Bikes. It cost \$20 plus \$3 per hour. If Julio paid \$41 then he rented the bike for how many hours?

**Solve each inequality.**

137)  $-3 \leq -3(-6x + 7)$

138)  $-22 > 2(7 - 6v)$

139)  $-3 - 5(-6 - 7a) \leq -78$

140)  $36 > -2(-6n + 8) + n$

141)  $-4(x - 7) \leq 40$

142)  $-65 \leq 5(x - 7)$