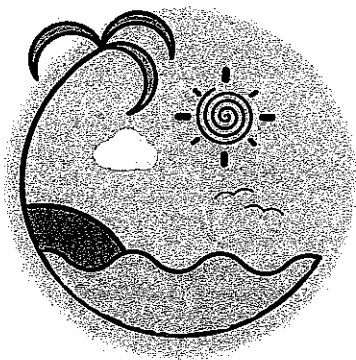




Summer Math Assignment For Incoming 8th Grade

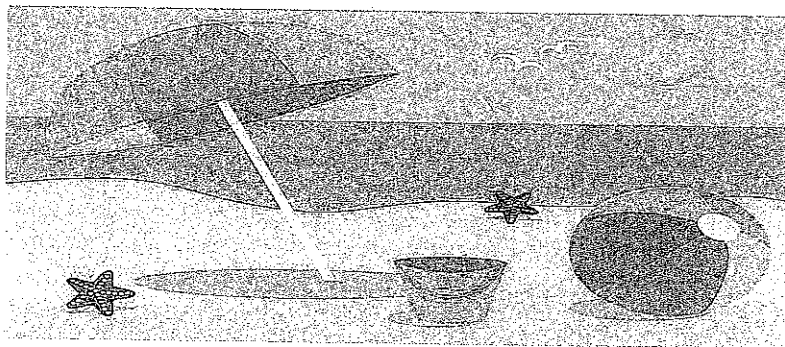
Complete the attached Math packet.

I suggest that you do 10 questions per day (Monday through Friday) so you pace yourself and maintain your math skills throughout the summer.

Bring in the completed Math packet with all your work on the first day of school. Your homeroom teacher will collect it. This assignment will be your first Math grade of the year.

I wish you a wonderful, fun-filled, and safe summer!
See you in September!

Ms. Rodrigues
Mrs. Ariyan



Summer Assignment

Date _____

Evaluate each expression.

1) $(-87) - 11$

2) $(-92) - (-42)$

3) $(-55) + 31$

4) $(-98) + 99$

5) $93 + 20$

6) $(-52) - (-5)$

7) $3 \div -1$

8) $6 \div -2$

9) $-15 \div 5$

10) $18 \div -2$

11) -5×10

12) -10×-3

13) -12×8

14) -12×5

Evaluate each expression.

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

16) $\frac{5}{6} - 4\frac{5}{6}$

17) $\left(-\frac{7}{4}\right) - \frac{5}{4}$

18) $(-2) - \left(-2\frac{6}{7}\right)$

19) $1\frac{7}{9} \div \frac{1}{6}$

20) $-8 \div 5\frac{5}{6}$

21) $5\frac{2}{3} \div 3\frac{3}{4}$

22) $\frac{5}{4} \div 4\frac{1}{2}$

23) $-1\frac{3}{4} \times -2\frac{4}{7}$

24) $-3\frac{1}{2} \times \frac{13}{8}$

25) $-4 \times \frac{3}{2}$

26) $-2 \times \frac{3}{5}$

Solve each equation.

27) $\frac{m}{3} = -10$

28) $\frac{n}{8} = 9$

29) $x + 16 = 21$

30) $180 = 12n$

31) $-10 + \frac{n}{3} = -14$

32) $7 = 2k + 5$

33) $-62 = 5m + 8$

34) $-12 = \frac{p}{2} - 7$

35) $-96 = 7(-2x - 4) - 3x$

36) $106 = x + 8(-2x + 2)$

37) $-8b - 7(7b + 6) = 300$

38) $-3(6b - 1) = -87$

Evaluate each using the values given.

39) $a - (-3 + b)$; use $a = -1$, and $b = 6$

40) $x(7 + y)$; use $x = -11$, and $y = -4$

41) $p(p + q)$; use $p = 2$, and $q = -4$

42) $xy \div 6$; use $x = 3$, and $y = -4$

Simplify each expression.

43) $-7x + 5x$

44) $8r - 10r$

45) $-7(1 - x)$

46) $6(n - 7)$

47) $3 - 4(5r - 6)$

48) $2(-9v + 3) + 5v$

49) $-4(5x - 7) - (x - 1)$

50) $5(2 - 9b) - 9(5 + 2b)$

Find the mode, median, mean, range, lower quartile, upper quartile, and interquartile range for each data set.

51)

Hours Slept

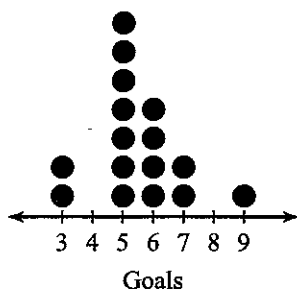
9	9	7	6	8	7
6.5	8.75	7.5	7.25	6	8
6.5	7	7.75	8.25	7.75	

52)

Shoe Size

9	7.5	6	8	8	13	6
8	7	8.5	7	10	7	7.5
7						

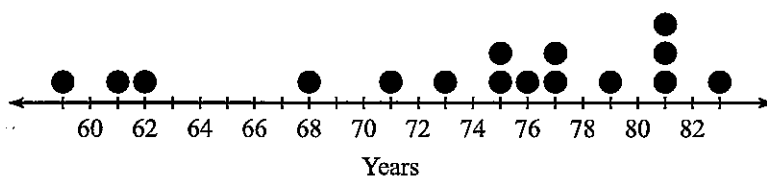
53) Goals in a Hockey Game



54) Games per World Series

5	6	5	7	4	7	5	6
7	5	4	7	6	5	6	7

55) Life Expectancy by Country



56) Basketball Tournament Champions

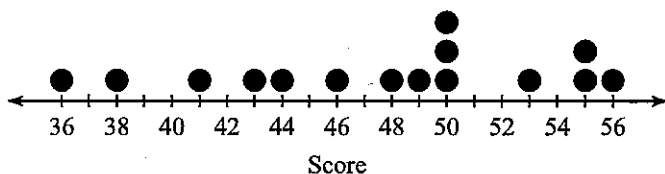
School	Times Won
Oregon	1
NY City College	1
Connecticut	4
Florida	2

School	Times Won
Oklahoma State	2
Arkansas	1
Michigan	1
Louisville	3

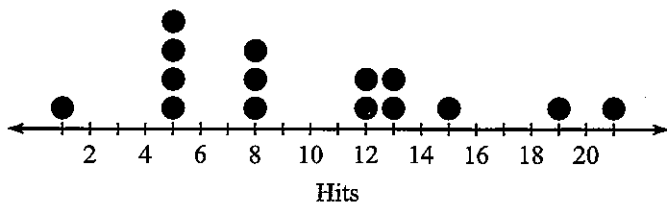
School	Times Won
UCLA	11
La Salle	1
Georgetown	1
Kentucky	8

School	Times Won
Kansas	3
San Francisco	2
UNLV	1

57) Test Scores

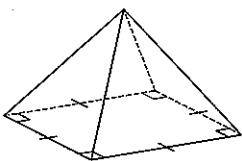


58) Hits in a Round of Hacky Sack

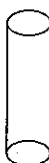


Name each figure.

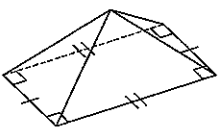
59)



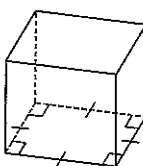
60)



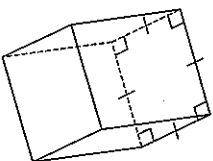
61)



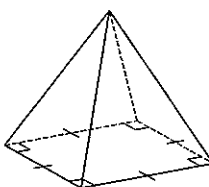
62)



63)

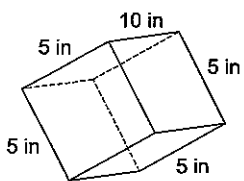


64)

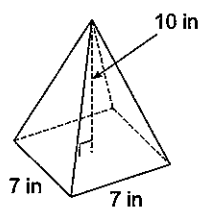


Find the volume of each figure. Round to the nearest tenth.

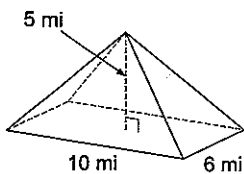
65)



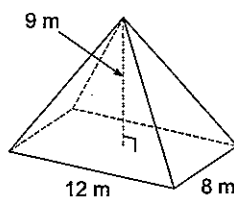
66)



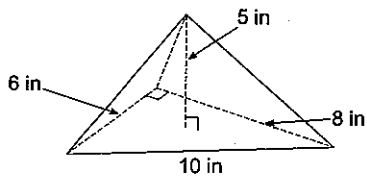
67)



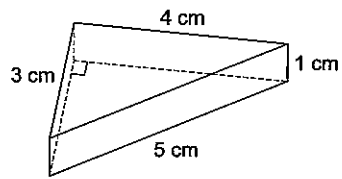
68)



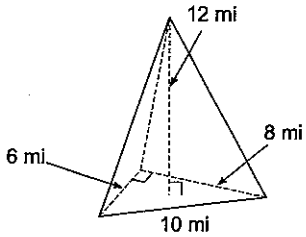
69)



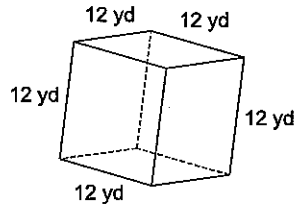
70)



71)

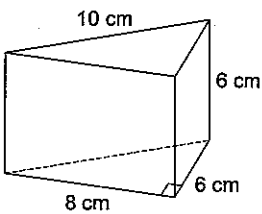


72)

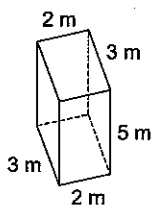


Find the surface area of each figure. Round to the nearest tenth.

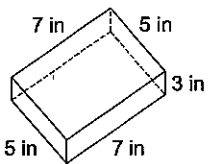
73)



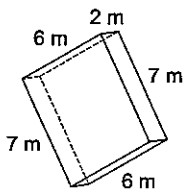
74)



75)

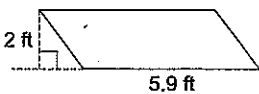


76)

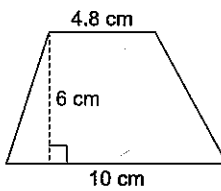


Find the area of each.

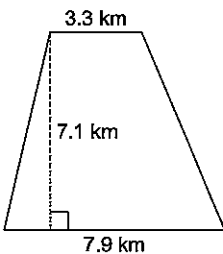
77)



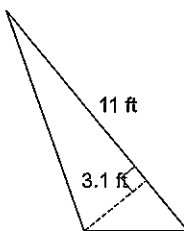
78)



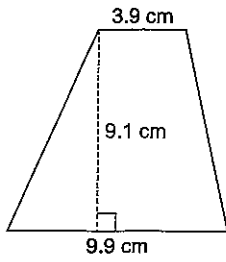
79)



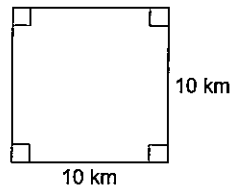
80)



81)



82)



Solve each proportion.

83) $\frac{9}{6} = \frac{p}{10}$

84) $\frac{x}{2} = \frac{2}{9}$

85) $\frac{6}{2} = \frac{5r}{9}$

86) $\frac{n}{10} = \frac{9}{2}$

87) $\frac{n}{9} = \frac{8}{3}$

88) $\frac{9.1}{9.5} = \frac{9.87}{k}$

89) $\frac{2.4}{6.6} = \frac{9.3}{3.5x}$

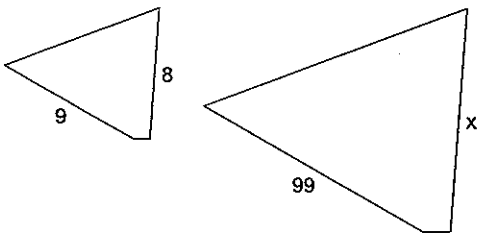
90) $\frac{x}{8.5} = \frac{9.9}{5.4}$

91) $\frac{5.599}{r} = \frac{8}{5.5}$

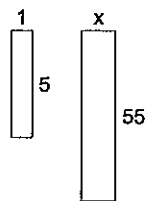
92) $\frac{n}{5.9} = \frac{1.4}{5.7}$

Each pair of figures is similar. Find the missing side.

93)



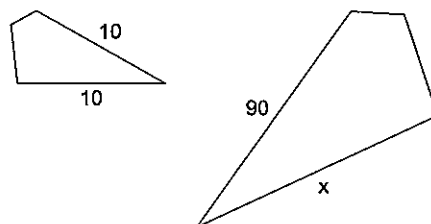
94)



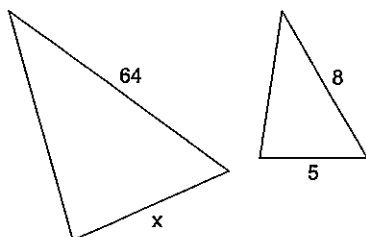
95)



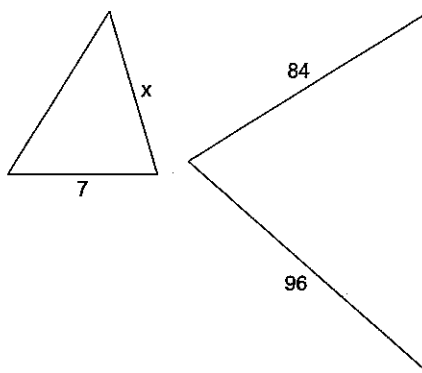
96)



97)



98)



Answer each question and round your answer to the nearest whole number.

99) One honeydew melon costs \$4. How many honeydews can you buy for \$40?

100) If you can buy one honeydew melon for \$4, then how many can you buy with \$68?

Write each as a percent. Round to the nearest tenth of a percent.

101) 6.52

102) 0.02

103) 7.726

104) 0.88

105) 0.4

106) 0.52

107) $\frac{4}{5}$

108) $\frac{1}{140}$

109) $\frac{9}{20}$

110) $\frac{21}{25}$

111) $\frac{19}{50}$

112) $\frac{6}{83}$

Write each as a fraction.

113) 0.136

114) 0.001

115) 0.7

116) 0.5

117) 0.4

118) 0.788

119) 117.2%

120) 56%

121) 1%

122) 0.8%

123) 0.5%

124) 80%

Solve each problem.

125) 21% of 9 is what?

126) 43% of 154 is what?

127) 2% of 138.6 is what?

128) What is 45% of 113?

129) What percent of 101 is 17.9?

130) 48.5 is what percent of 150?

131) What is 22% of 102?

132) 22% of 11 is what?

133) 60% of what is 116.2?

134) 3 is what percent of 34.9?

Find the selling price of each item.

135) Original price of a wagon: \$199.95
Discount: 35%
Tax: 5%

136) Original price of a puppy: \$389.95
Discount: 42%
Tax: 3%

137) Original price of a tie: \$18.00
Discount: 49%
Tax: 6%

138) Original price of a motorcycle: \$5,500.00
Discount: 10%
Tax: 1%

139) Original price of a computer game: \$49.99
Discount: 11%
Tax: 5%

140) Original price of a truck: \$55,500.00
Discount: 10%
Tax: 3%

141) Cost of a telescope: \$325.00
Markup: 35%
Tax: 5%

142) Cost of a sled: \$159.99
Markup: 80%
Tax: 6%

143) Cost of a parrot: \$99.95
Markup: 70%
Tax: 1%

144) Cost of a jacket: \$209.50
Markup: 10%
Tax: 5%

145) Cost of a computer: \$3,500.00
Markup: 50%
Tax: 5%

146) Cost of a sled: \$139.50
Markup: 80%
Tax: 4%

Find the GCF of each.

147) 39, 52

148) 24, 44

149) 50, 40

150) 49, 5

151) 48, 16

152) 27, 18

Find the LCM of each.

153) 20, 30

154) 28, 8

155) 18, 21

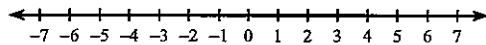
156) 10, 30

157) 20, 34

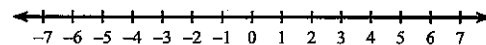
158) 24, 36

Draw a graph for each inequality.

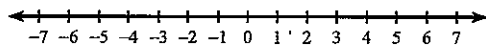
159) $p \leq 3$



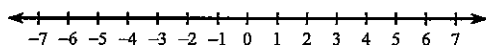
160) $n \leq 2$



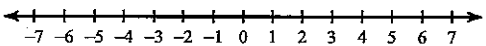
161) $x \leq -6$



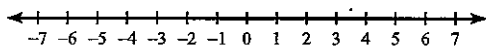
162) $n \geq -6$



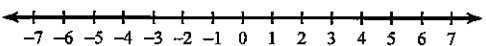
163) $r > 6$



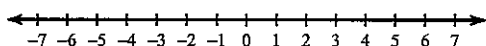
164) $x > -5$



165) $x \geq 6$

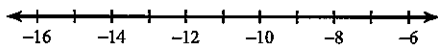


166) $m > 1$

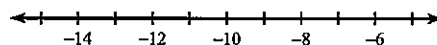


Solve each inequality and graph its solution.

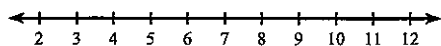
167) $-30 > x - 19$



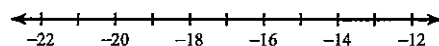
168) $-24 > r - 13$



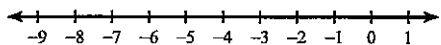
169) $2 > r - 8$



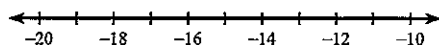
170) $272 > -17p$



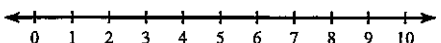
171) $-1 \geq \frac{n-1}{8}$



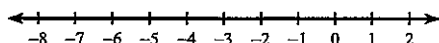
172) $\frac{x}{5} + 9 > 6$



173) $385 < 7x - 7(-7 - 5x)$



174) $3(8 + 7b) > -102$



Write each number in scientific notation.

175) 61000

176) 390000

177) 2.36

178) 20

179) 0.087

180) 0.0000828

Write each number in standard notation.

181) 5.8×10^5

182) 6.96×10^{-5}

183) 5.4×10^{-2}

184) 9.99×10^3

185) 1.8×10^{-1}

186) 6×10^2

187) 4.4×10^3

188) 4.76×10^{-4}

189) 1.4×10^5

190) 9×10^4

191) 8.6×10^0

192) 5.73×10^{-1}

Simplify. Write each answer in scientific notation.

193) $(9.7 \times 10^2)(6 \times 10^{-3})$

194) $(1.4 \times 10^2)(4.2 \times 10^2)$

195) $(7.7 \times 10^{-2})(3 \times 10^{-2})$

196) $(6.1 \times 10^{-6})(6 \times 10^0)$

Simplify. Your answer should contain only positive exponents.

197) $k^3 \cdot 7k$

198) $8p^3 \cdot 8p^4$

199) $3x^3 \cdot x^4$

200) $7p \cdot 5p^3$

201) $(2m^3)^3$

202) $(8n^2)^2$

203) $(5k)^2$

204) $(7x^3)^3$

205) $8k^{-1}$

206) $2b^{-4}$

207) $5v^{-4}$

208) $8a^{-2}$

209) $4x^{-2}$

210) $5v^{-3}$

211) $4x^{-3}$

212) $5r^{-4}$

213) $\frac{6n}{6n}$

214) $\frac{7k}{6k^4}$

215) $\frac{x}{4x^3}$

216) $\frac{5x^4}{x^3}$

Find each square root.

217) $\sqrt{4}$

218) $\sqrt{121}$

219) $\sqrt{36}$

220) $\sqrt{1}$

Find each square root. Round to the nearest whole number.

221) $\sqrt{36}$

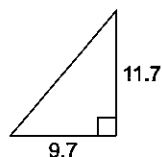
222) $\sqrt{65}$

223) $\sqrt{1}$

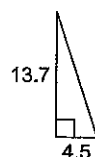
224) $\sqrt{145}$

Find each missing length to the nearest tenth.

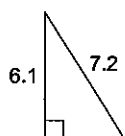
225)



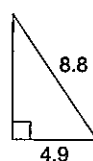
226)



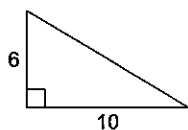
227)



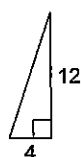
228)



229)

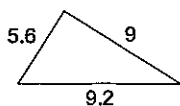


230)

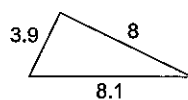


Do the following lengths form a right triangle?

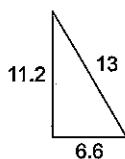
231)



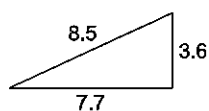
232)



233)

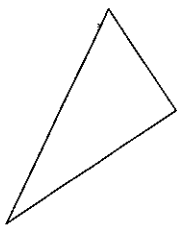


234)

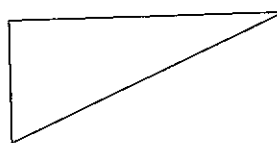


Classify each triangle by its angles and sides.

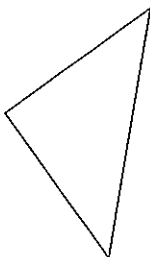
235)



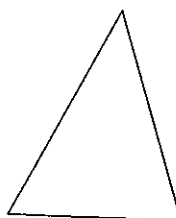
236)



237)

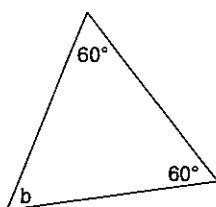


238)

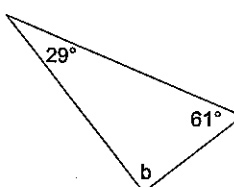


Find the measure of angle b.

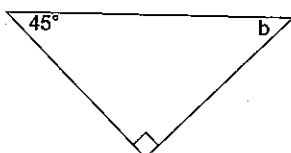
239)



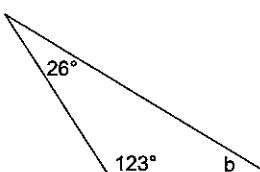
240)



241)

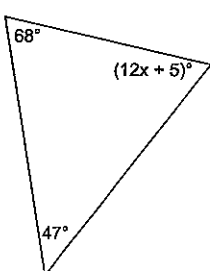


242)

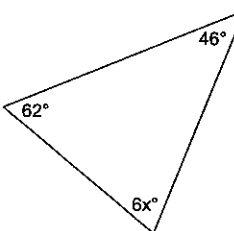


Find the value of x.

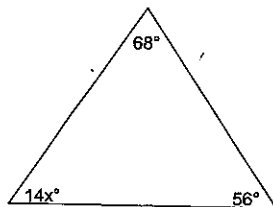
243)



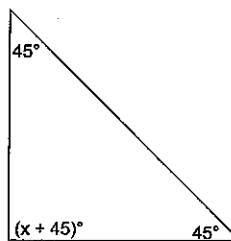
244)



245)

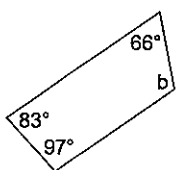


246)

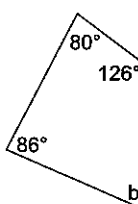


Find the measure of angle b.

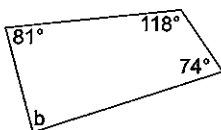
247)



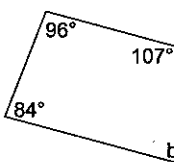
248)



249)



250)



Round each to the place indicated.

251) 73,311

252) 2,838.63

253) 3.9596597

254) 3,923,256