Honors Math Summer Packet ‘25

The summer packet is meant to give you a jump start on the year. Feel free to look up reminders as needed. These problems are from Chapter 1 in the Honors text. We will review the packet in class and have a test over these skills within the first two weeks of school.

DO NOT USE A CALCULATOR!!!!

7TH GRADE - HONORS SUMMER PACKET

Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Determine the place value of the digit 3 in the whole number.

1) 2530 1) _____

2) 30,542 2) _____

3) 25,304,168 3) _____

4) 30,500,421 4) _____

5) 1392 5) _____

6) 403,681,295 6) _____

7) 463,981 7) _____

8) 45,271,903 8) _____

Write the whole number in words.

9) 483 9) _____

10) 3072 10) _____

11) 5870 11) _____

12) 135,060 12) _____

13) 9,300,695 13) _____

14) 22,000,674 14) _____

15) 64,568,009 15) _____

Write the number in the sentence in words.

16) Jennilee has 30,000 frequent flier miles. 16) _____

17) The highest point in California is Mount Whitney at an elevation of 14,494 feet. 17) _____

18) The control center was suddenly unable to track the satellite when it reached a distance of 128,615 miles from the earth's surface. 18) _____

19) The population of Annie's hometown is approximately 1,650,000. 19) _____

Write the whole number in standard form.

20) Eight thousand, one hundred sixty-seven 20) _____

21) Seven thousand, six 21) _____

22) One hundred million, six thousand 22) _____

23) Seven million, nine thousand, five hundred forty-one 23) _____

Write the whole number in the sentence in standard form.

24) Jamie drove five hundred twenty-seven miles to visit his parents. 24) _____

25) A certain exotic sports car costs three hundred twelve thousand, four hundred ninety -four dollars. 25) _____

26) Don figured out that he had lived five hundred eighty-two million, sixteen thousand seconds. 26) _____

27) The volume of water in the lake is eight hundred twenty-one million, ninety-four thousand, six hundred thirteen gallons. 27) _____

Write the whole number in expanded form.

28) 812 28) _____

29) 5,634 29) _____

30) 94,817 30) _____

31) 60,750 31) _____

32) 48,201,004 32) _____

Add.

33) 36 + 12 33) _____

34) 34) _____

$$\begin{array}{r} 5{,}818 \\ +\ 9{,}593 \\ \hline \end{array}$$

35) 5,136 + 3,987 35) _____

36) 31,113 + 23,321 36) _____

37) 130 + 7,551 37) _____

38)
$$\begin{array}{r} 81{,}010 \\ +\ 699 \\ \hline \end{array}$$

38) _____

39)
$$\begin{array}{r} 15{,}799 \\ +\ 37{,}459 \\ \hline \end{array}$$

39) _____

40)
$$\begin{array}{r} 6{,}299 \\ 170 \\ 37 \\ +\ 6{,}976 \\ \hline \end{array}$$

40) _____

41)
$$\begin{array}{r} 7{,}016 \\ 657 \\ 76 \\ 6{,}715 \\ +\ 9{,}013 \\ \hline \end{array}$$

41) _____

42)
$$\begin{array}{r} 196{,}939 \\ 32{,}124 \\ +\ 4{,}531{,}250 \\ \hline \end{array}$$

42) _____

Subtract.

43)
$$\begin{array}{r} 87 \\ -\ 43 \\ \hline \end{array}$$

43) _____

44)
$$\begin{array}{r} 556 \\ -\ 332 \\ \hline \end{array}$$

44) _____

45)
$$\begin{array}{r} 94 \\ -\ 56 \\ \hline \end{array}$$

45) _____

46)
$$\begin{array}{r} 4{,}359 \\ -\ 442 \\ \hline \end{array}$$
46) _____

47) 8,040 - 1,561 47) _____

48)
$$\begin{array}{r} 11{,}531 \\ -\ 8{,}898 \\ \hline \end{array}$$
48) _____

49)
$$\begin{array}{r} 75{,}137 \\ -\ 29{,}752 \\ \hline \end{array}$$
49) _____

Solve.

50) Find the difference of 92 and 9 50) _____

51) Subtract 6 from 85. 51) _____

52) Find the difference of 31 and 5. 52) _____

53) Find 48 subtracted from 95. 53) _____

54) Lew is installing an invisible fence in his back yard which measures 112 feet by 66 feet by 87 feet by 94 feet. How many feet of wiring is needed to enclose his yard? 54) _____

55) A store sold 39 lamps on Monday, 17 lamps on Tuesday, and 25 lamps on Wednesday. How many lamps did the store sell in all? 55) _____

56) Last year a company had 5,883 employees. This year the number of employees increased by 1,399. How many employees does the company have now? 56) _____

57) A town's population in 1976 was 130,533. By the year 2000 it had increased by 26,008. How many people lived there in 2000? 57) _____

58) A store sold 35 rugs on Monday, 17 rugs on Tuesday, and 25 rugs on Wednesday. How many rugs did the store sell in all? 58) _____

59) A traveler picks up a rental car that has an odometer reading of 15,891 miles on it. When he returns it, the odometer reads 16,414 miles. How many miles did he drive the rental car? 59) _____

60) The Green County school system has 2,947 high school students, 3,264 middle school students, and 4,182 elementary school students. How many students are in the Green County school system in total? 60) _____

61) A stock worth $264 per share on July 12 dropped to $75 per share on July 31 of the same year. Find how much it lost in value from July 12th to the 31st. 61) _____

62) Claire is reading a 401-page book. If she has just finished reading page 298, how many more pages must she read to finish the book? 62) _____

Multiply.

63) $92 \cdot 1$ 63) _____

64) $31 \cdot 1$ 64) _____

65) $77 \cdot 0$ 65) _____

66) $95 \cdot 0 \cdot 6$ 66) _____

Use the distributive property to rewrite the expression.

67) $5(1 + 12)$ 67) _____

Multiply.

68) 68) _____

$$\begin{array}{r} 96 \\ \times\ 3 \\ \hline \end{array}$$

69) 69) _____

$$\begin{array}{r} 574 \\ \times\ 6 \\ \hline \end{array}$$

70) 70) _____

$$\begin{array}{r} 6{,}829 \\ \times\ 9 \\ \hline \end{array}$$

71) 71) _____

$$\begin{array}{r} 36 \\ \times\ 16 \\ \hline \end{array}$$

72) 72) _____

$$\begin{array}{r} 509 \\ \times\ 16 \\ \hline \end{array}$$

73) 73) _____

$$\begin{array}{r} 5{,}553 \\ \times\ 475 \\ \hline \end{array}$$

74) 634×305 74) _____

75) $1 \cdot 72$ 75) _____

76) $14 \cdot 0$ 76) _____

77) $0 \cdot 12$ 77) _____

78) $7 \cdot 6 \cdot 0$ 78) _____

79) $12 \cdot 0 \cdot 9$ 79) _____

Use the distributive property to rewrite the expression.

80) $7(4 + 3)$ 80) _____

81) $2(1 + 5)$ 81) _____

82) $29(17 + 44)$ 82) _____

Solve.

83) The textbook for a history class costs \$55. There are 31 students in the class. Find the total cost of the history books for the class. 83) _____

84) The seats in the lecture hall are arranged in 19 rows with 6 seats in each row. Find how many seats are in this room. 84) _____

85) A case of candy bars has 3 layers of candy bars. In each layer are 8 rows with 15 candy bars in each row. Find how many candy bars are in a case. 85) _____

86) An apartment complex has 8 apartment buildings. Each building has 6 floors with 3 apartments per floor. Find how many apartments are in this complex. 86) _____

87) In a distant solar system the diameter of planet A is 7 times as great as the diameter of planet B. The diameter of planet B is 907 miles. Find the diameter of planet A. 87) _____

88) A company rents a mid-size car at \$299 per month for twelve months. What is the cost for the car rental during this time? 88) _____

89) One packet of peanuts has 15 grams of fat. How many grams of fat are in 8 packets of peanuts? 89) _____

Find the quotient.

90) $\frac{15}{3}$ 90) _____

91) $\frac{45}{9}$ 91) _____

92) $36 \div 4$ 92) _____

93) $36 \div 4$ 93) _____

94) $\frac{9}{0}$ 94) _____

95) $\frac{0}{3}$ 95) _____

96) $5 \div 1$ 96) _____

97) $30 \div 1$ 97) _____

98) $43 \div 0$ 98) _____

99) $68 \div 68$ 99) _____

100) $0 \div 92$ 100) _____

Divide.

101) $5\overline{)20}$ 101) _____

102) $5\overline{)285}$ 102) _____

103) $4\overline{)5{,}224}$ 103) _____

104) $4{,}063 \div 17$ 104) _____

105) $\frac{30{,}705}{69}$ 105) _____

106) $4{,}426 \div 7$ 106) _____

107) $3{,}415 \div 4$ 107) _____

108) $325 \div 23$ 108) _____

109) $9{,}399 \div 17$ 109) _____

Solve.

110) Amy teaches Chinese lessons for \$55 per student for a 6-week session. From one group of students, she collects \$1,650. Find how many students are in the group. 110) _____

111) One ticket won a prize of $9,454,000. The winning ticket was purchased by 29 people who had pooled their money. Find how many dollars each person receives if they each receive an equal share. 111) _____

112) In a distant galaxy the gravity of planet A is 216 times as strong as the gravity of planet B, so objects on planet A weigh 216 times as much as they weigh on planet B. If the object weighs 34,560 pounds on planet A, how much does it weigh on plant B? 112) _____

113) Ms. Losch has a piece of rope 181 feet long that she cuts into pieces for an experiment in her first-grade class. Each piece of rope is to be 7 feet long. How many 7 foot long pieces of rope can she cut from the original piece of rope? 113) _____

114) A dairy produces 230,000 quarts of milk each day. There are 4 quarts in a gallon. How many gallons of milk are produced each day? 114) _____

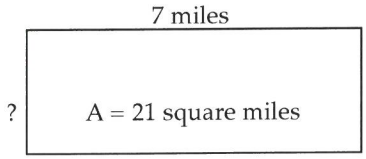
115) Jim and Tammi ran a distance of 26,400 feet. A mile is 5280 ft. How many miles did they run? 115) _____

116) There is a bridge over a certain highway every 9 miles. The first bridge is at the beginning of a 231-mile stretch of highway. Find how many bridges there are over 231 miles of the highway. 116) _____

117) Malcom wishes to pay off a car loan of $7,704 in 36 months. How large will his monthly payment be? 117) _____

118) 204 chocolates are to be packed into boxes each of which will contain 8 chocolates. How many boxes of chocolates will there be? How many chocolates will be left over? 118) _____

119) If the area of a rectangle is 21 square miles and its length is 7 miles, what is its width? 119) _____



Write using exponential notation.

120) 4 • 4 120) _____

121) 8 • 8 • 8 121) _____

122) 2 • 2 • 2 • 2 122) _____

123) 8 • 8 • 8 • 8 • 8 123) _____

124) 14 • 14 • 14 • 14 124) _____

125) $13 \cdot 13 \cdot 13 \cdot 13 \cdot 13$ 125) _____

126) $6 \cdot 6 \cdot 5 \cdot 5 \cdot 5 \cdot 5$ 126) _____

127) $8 \cdot 6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$ 127) _____

128) $9 \cdot 9 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 7$ 128) _____

129) $2 \cdot 2 \cdot 2 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 6$ 129) _____

Evaluate.

130) 11^2 130) _____

131) 14^2 131) _____

132) 1^3 132) _____

133) 7^1 133) _____

134) 2^3 134) _____

135) 5^3 135) _____

136) 3^5 136) _____

137) 10^4 137) _____

138) 6^5 138) _____

139) $7 \cdot 5^3$ 139) _____

140) $2 \cdot 3^2$ 140) _____

Simplify.

141) $5 \cdot 4 - 6$ 141) _____

142) $28 - 3 \cdot 2$ 142) _____

143) $\frac{240}{6} - 4$ 143) _____

144) $30 + 26 \cdot 21 - 2$ 144) _____

145) $0 \div 4 + 5 \cdot 2$ 145) _____

146) $48 \div 0 + 2$ 146) _____

147) $(5 + 12) \cdot (16 - 8)$ 147) _____

148) $(60 + 6^2) \div 3 \cdot 2^2$ 148) _____

149) $24 - (16 \div 4) + 5 \cdot 2^2$ 149) _____

150) $(5 + 5) \cdot 5 + [9 \div (3 \div 3)]$ 150) _____

151) $\dfrac{8^2 - 2^3 + 24}{80 \div 5 \cdot 4 \cdot 1 \div 4}$ 151) _____

152) $[25 - (4 + 6) \div 2] - [1 + 12 \div 3]$ 152) _____

153) $6 \cdot [3^2 + 8 \cdot (4 + 5)]$ 153) _____

154) $\dfrac{153 + 7}{3^2 - 4}$ 154) _____

155) $\dfrac{50(12 - 9) - 6}{3^2 - 3}$ 155) _____

156) $25 - [9 + (8 - 6)] - (7 - 5)^3$ 156) _____

157) $5 \cdot (5 + 5)^2 - 3 \cdot (6 - 4)^2$ 157) _____

158) $390 - 2^3 \cdot 24 \div (4 \cdot 3 - 2 \cdot 2)$ 158) _____

159) $3[(6 - 5)^2 + (19 - 17)^2] + 13$ 159) _____

Evaluate the expression for the given replacement values.

160) $x + y$ for $x = 14$, $y = 23$ 160) _____

161) $x \div y$ for $x = 486$, $y = 0$ 161) _____

162) $x \cdot y$ for $x = 6$, $y = 32$ 162) _____

163) $x - y + z$ for $x = 23$, $y = 7$, $z = 4$ 163) _____

164) $x - 5yz$ for $x = 97$, $y = 3$, $z = 4$ 164) _____

165) $x - (y + z)$ for $x = 20$, $y = 10$, $z = 1$ 165) _____

166) $8x + 9$ for $x = 5$ 166) _____

167) $3x + 4y$ for $x = 8$ and $y = 2$ 167) _____

168) $9x - 5y$ for $x = 4$ and $y = 3$ 168) _____

169) $x^2 - 3y$ for $x = 8$, $y = 2$ 169) _____

170) $\frac{5x}{y}$ for $x = 28$, $y = 7$ 170) _____

171) $\frac{x + y}{6}$ for $x = 24$, $y = 12$ 171) _____

172) $\frac{5x + 2y}{5}$ for $x = 10$, $y = 5$ 172) _____

173) $\frac{x}{4} + \frac{y}{4}$ for $x = 12$, $y = 32$ 173) _____

174) $(x + 3y)^2$ for $x = 3$, $y = 2$ 174) _____

175) $4xy^2 - 6$ for $x = 2$, $y = 3$ 175) _____

176) $6y(2z - x)$ for $x = 9$, $y = 4$, $z = 6$ 176) _____

177) $\frac{6xy}{z}$ for $x = 6$, $y = 4$, $z = 2$ 177) _____

178) $\frac{12x - 6}{y}$ for $x = 6$, $y = 3$ 178) _____

179) $x^4 - (y - z)$ for $x = 3$, $y = 3$, $z = 2$ 179) _____

Decide whether the given number is a solution of the given equation.

180) Is 14 a solution of $p + 10 = 24$? 180) _____

181) Is 6 a solution of $6m + 4 = 42$? 181) _____

182) Is 7 a solution of $3x - 5 = 16$? 182) _____

183) Is 9 a solution of $4(r + 9) = 45$? 183) _____

Determine which numbers in the set are solutions to the equation.

184) $6x = 42$; {7, 8, 252} 184) _____

185) $7n + n = 64$; {8, 9, 512} 185) _____

186) $6n - 7 = 11$; {3, 8, 16} 186) _____

Write the phrase as a variable expression. Use x to represent "a number."

187) The total of 145 and a number 187) _____

188) The sum of a number and 100 188) _____

189) 5 times a number 189) _____

190) 21 less a number 190) _____

191) The product of 6 and a number 191) _____

192) 22 subtracted from a number 192) _____

193) The difference of a number and 78 193) _____

194) 65 decreased by a number 194) _____

195) A number divided by 16 195) _____

196) The quotient of 56 and a number 196) _____

197) 6 decreased by 5 times a number 197) _____

198) 9 less than 7 times a number 198) _____

199) 9 more than 8 times a number 199) _____

200) The quotient of a number and 3, decreased by 5 200) _____