

Honors Math Summer Packet '26

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 textbook. 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)
$$\begin{array}{r} 5,818 \\ + 9,593 \\ \hline \end{array}$$
 34) _____

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

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

37) $130 + 7,551$ 37) _____

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

38) _____

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

39) _____

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

40) _____

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

41) _____

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

42) _____

Subtract.

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

43) _____

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

44) _____

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

45) _____

46) $\begin{array}{r} 4,359 \\ - 442 \\ \hline \end{array}$	46) _____
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47) $8,040 - 1,561$	47) _____
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48) $\begin{array}{r} 11,531 \\ - 8,898 \\ \hline \end{array}$	48) _____
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49) $\begin{array}{r} 75,137 \\ - 29,752 \\ \hline \end{array}$	49) _____
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Solve.

50) Find the difference of 92 and 9	50) _____
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51) Subtract 6 from 85.	51) _____
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52) Find the difference of 31 and 5.	52) _____
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53) Find 48 subtracted from 95.	53) _____
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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) _____
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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) _____
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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) _____
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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) _____
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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) _____
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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) _____
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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)
$$\begin{array}{r} 96 \\ \times 3 \\ \hline \end{array}$$
 68) _____

69)
$$\begin{array}{r} 574 \\ \times 6 \\ \hline \end{array}$$
 69) _____

70)
$$\begin{array}{r} 6,829 \\ \times 9 \\ \hline \end{array}$$
 70) _____

71)
$$\begin{array}{r} 36 \\ \times 16 \\ \hline \end{array}$$
 71) _____

72)
$$\begin{array}{r} 509 \\ \times 16 \\ \hline \end{array}$$
 72) _____

73)
$$\begin{array}{r} 5,553 \\ \times 475 \\ \hline \end{array}$$
 73) _____

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) _____

$$92) 36 \div 4$$

$$92) \underline{\hspace{2cm}}$$

$$93) 36 \div 4$$

$$93) \underline{\hspace{2cm}}$$

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

$$94) \underline{\hspace{2cm}}$$

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

$$95) \underline{\hspace{2cm}}$$

$$96) 5 \div 1$$

$$96) \underline{\hspace{2cm}}$$

$$97) 30 \div 1$$

$$97) \underline{\hspace{2cm}}$$

$$98) 43 \div 0$$

$$98) \underline{\hspace{2cm}}$$

$$99) 68 \div 68$$

$$99) \underline{\hspace{2cm}}$$

$$100) 0 \div 92$$

$$100) \underline{\hspace{2cm}}$$

Divide.

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

$$101) \underline{\hspace{2cm}}$$

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

$$102) \underline{\hspace{2cm}}$$

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

$$103) \underline{\hspace{2cm}}$$

$$104) 4,063 \div 17$$

$$104) \underline{\hspace{2cm}}$$

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

$$105) \underline{\hspace{2cm}}$$

$$106) 4,426 \div 7$$

$$106) \underline{\hspace{2cm}}$$

$$107) 3,415 \div 4$$

$$107) \underline{\hspace{2cm}}$$

$$108) 325 \div 23$$

$$108) \underline{\hspace{2cm}}$$

$$109) 9,399 \div 17$$

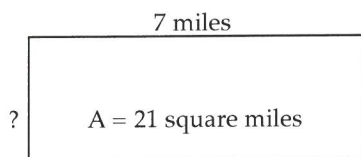
$$109) \underline{\hspace{2cm}}$$

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.

$$110) \underline{\hspace{2cm}}$$

- 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) $4 \cdot 4$ 120) _____
- 121) $8 \cdot 8 \cdot 8$ 121) _____
- 122) $2 \cdot 2 \cdot 2 \cdot 2$ 122) _____
- 123) $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$ 123) _____
- 124) $14 \cdot 14 \cdot 14 \cdot 14$ 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) $\frac{8^2 - 2^3 + 24}{80 \div 5 \cdot 4 \cdot 1 \div 4}$

151) _____

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

152) _____

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

153) _____

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

154) _____

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

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) _____