

Dear Incoming 8th Graders (and Parents),

This summer packet is designed to help review skills from 7th grade math that you will need to be successful in the fall. Please make sure to complete this packet in its entirety and show your work (on a separate sheet of paper, as necessary). You will need to be able to complete all the problems provided **without the use of a calculator** and will turn this packet (with your work) in for a quiz grade during that first week back in August. We will also spend the first several days of school reviewing before you will be assessed over this content as your first test grade of the year.

Hope you all have a wonderful summer!

See you in August,
Mrs. Norfleet

8TH GRADE - EOA 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) 1392 | 4) _____ |
| 5) 403,681,295 | 5) _____ |
| 6) 45,271,903 | 6) _____ |

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Write the whole number in words.

- | | | |
|---|--|-----------|
| 7) 483 | | 7) _____ |
| A) four thousand, eighty-three | B) four thousand, eight hundred thirty | |
| C) four hundred eighty-three | D) four hundred thirty-eight | |
| 8) 5870 | | 8) _____ |
| A) five thousand, eight hundred seven | B) five hundred eighty-seven | |
| C) five thousand, eight hundred seventy | D) fifty-eight thousand, seventy | |
| 9) 9,300,695 | | 9) _____ |
| A) nine million, three hundred thousand, six hundred ninety-five | | |
| B) nine million, three thousand, six hundred ninety-five | | |
| C) nine million, thirty thousand, six hundred ninety-five | | |
| D) ninety-three thousand, six hundred ninety-five | | |
| 10) 64,568,009 | | 10) _____ |
| A) sixty-million, five thousand sixty-eight hundred, nine | | |
| B) sixty-four million, five hundred sixty-eight thousand, nine | | |
| C) sixty-four million, five hundred thousand, sixty-eight hundred, nine | | |
| D) sixty million, forty-five thousand, sixty-eight hundred and nine | | |

Write the number in the sentence in words.

- | | | |
|---|--------------------|-----------|
| 11) Jennilee has 30,000 frequent flier miles. | | 11) _____ |
| A) three hundred thousand | B) thirty thousand | |
| C) three thousand | D) thirty million | |

Write the whole number in standard form.

- 12) Eight thousand, one hundred sixty-seven 12) _____
A) 8167 B) 810,067 C) 81,067 D) 800,167
- 13) Seven thousand, six 13) _____
A) 7006 B) 7600 C) 7060 D) 76,000
- 14) One hundred million, six thousand 14) _____
A) 100,006,000 B) 106,000,000 C) 1,600,000 D) 1006
- 15) Seven million, nine thousand, five hundred forty-one 15) _____
A) 790,541 B) 709,541 C) 7,009,541 D) 7,090,541

Write the whole number in the sentence in standard form.

- 16) Jamie drove five hundred twenty-seven miles to visit his parents. 16) _____
A) 5027 B) 527 C) 572 D) 5270
- 17) Don figured out that he had lived five hundred eighty-two million, sixteen thousand seconds. 17) _____
A) 582,000,016,000 B) 58,216,000
C) 582,016,000 D) 582,160,000
- 18) The volume of water in the lake is eight hundred twenty-one million, ninety-four thousand, six hundred thirteen gallons. 18) _____
A) 821,000,094,613 B) 82,194,613
C) 821,940,613 D) 821,094,613

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

Write the whole number in expanded form.

- 19) 812 19) _____
- 20) 5,634 20) _____
- 21) 60,750 21) _____
- 22) 48,201,004 22) _____

Add.

- 23) $36 + 12$ 23) _____
- 24) 24) _____
$$\begin{array}{r} 5,818 \\ + 9,593 \\ \hline \end{array}$$
- 25) $5,136 + 3,987$ 25) _____
- 26) $130 + 7,551$ 26) _____

$$\begin{array}{r} 27) \\ 81,010 \\ + 699 \\ \hline \end{array}$$

27) _____

$$\begin{array}{r} 28) \\ 15,799 \\ + 37,459 \\ \hline \end{array}$$

28) _____

$$\begin{array}{r} 29) \\ 6,299 \\ 170 \\ 37 \\ + 6,976 \\ \hline \end{array}$$

29) _____

$$\begin{array}{r} 30) \\ 196,939 \\ 32,124 \\ + 4,531,250 \\ \hline \end{array}$$

30) _____

Subtract.

$$\begin{array}{r} 31) \\ 87 \\ - 43 \\ \hline \end{array}$$

31) _____

$$\begin{array}{r} 32) \\ 556 \\ - 332 \\ \hline \end{array}$$

32) _____

$$\begin{array}{r} 33) \\ 94 \\ - 56 \\ \hline \end{array}$$

33) _____

$$\begin{array}{r} 34) \\ 4,359 \\ - 442 \\ \hline \end{array}$$

34) _____

$$\begin{array}{r} 35) \\ 11,531 \\ - 8,898 \\ \hline \end{array}$$

35) _____

36)

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

36) _____

Solve.

37) Find the difference of 92 and 9

37) _____

38) Subtract 6 from 85.

38) _____

39) Find the difference of 31 and 5.

39) _____

40) 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?

40) _____

41) 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?

41) _____

42) 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?

42) _____

43) 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?

43) _____

44) 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?

44) _____

45) 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?

45) _____

46) 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?

46) _____

47) 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.

47) _____

48) 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?

48) _____

Multiply.

49) $92 \cdot 1$

49) _____

50) $31 \cdot 1$

50) _____

51) $77 \cdot 0$

51) _____

52) $95 \cdot 0 \cdot 6$

52) _____

53)

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

53) _____

54)

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

54) _____

55)

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

55) _____

56)

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

56) _____

57)

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

57) _____

58)

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

58) _____

59) $1 \cdot 72$

59) _____

60) $0 \cdot 12$

60) _____

61) $12 \cdot 0 \cdot 9$

61) _____

Use the distributive property to rewrite the expression.

62) $7(4 + 3)$

62) _____

63) $2(1 + 5)$

63) _____

Solve.

64) 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.

64) _____

65) 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.

65) _____

66) 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.

66) _____

67) 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.

67) _____

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

68) _____

Find the quotient.

69) $\frac{15}{3}$

69) _____

70) $\frac{45}{9}$

70) _____

71) $36 \div 4$

71) _____

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

72) _____

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

73) _____

74) $30 \div 1$

74) _____

75) $43 \div 0$

75) _____

76) $68 \div 68$

76) _____

77) $0 \div 92$

77) _____

Divide.

78) $5 \overline{)20}$

78) _____

79) $5 \overline{)285}$

79) _____

80) $4 \overline{)5,224}$

80) _____

81) $4,426 \div 7$

81) _____

82) $3,415 \div 4$

82) _____

Solve.

83) 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.

83) _____

84) 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?

84) _____

85) 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?

85) _____

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

86) _____

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

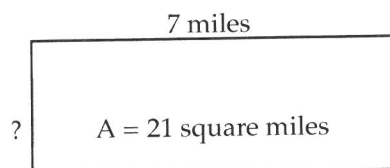
87) _____

88) 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?

88) _____

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

89) _____



Write using exponential notation.

90) $4 \cdot 4$

90) _____

91) $8 \cdot 8 \cdot 8$

91) _____

92) $2 \cdot 2 \cdot 2 \cdot 2$

92) _____

93) $14 \cdot 14 \cdot 14 \cdot 14$

93) _____

94) $6 \cdot 6 \cdot 5 \cdot 5 \cdot 5 \cdot 5$

94) _____

95) $9 \cdot 9 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 7$

95) _____

96) $2 \cdot 2 \cdot 2 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 6$

96) _____

Evaluate.

97) 11^2

97) _____

98) 1^3

98) _____

99) 7^1

99) _____

100) 2^3

100) _____

101) 3^5

101) _____

102) 6^5

102) _____

103) $7 \cdot 5^3$

103) _____

104) $2 \cdot 3^2$

104) _____

Simplify.

105) $5 \cdot 4 - 6$

105) _____

106) $28 - 3 \cdot 2$

106) _____

107) $\frac{240}{6} - 4$

107) _____

108) $30 + 26 \cdot 21 - 2$

108) _____

109) $48 \div 0 + 2$

109) _____

110) $(5 + 12) \cdot (16 - 8)$

110) _____

111) $(60 + 6^2) \div 3 \cdot 2^2$

111) _____

112) $24 - (16 \div 4) + 5 \cdot 2^2$

112) _____

113) $6 \cdot [3^2 + 8 \cdot (4 + 5)]$

113) _____

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

114) _____

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

115) _____

116) $5 \cdot (5 + 5)^2 - 3 \cdot (6 - 4)^2$

116) _____

117) $3[(6 - 5)^2 + (19 - 17)^2] + 13$

117) _____

Evaluate the expression for the given replacement values.

118) $x + y$ for $x = 14, y = 23$

118) _____

119) $x \cdot y$ for $x = 6, y = 32$

119) _____

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

120) _____

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

121) _____

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

122) _____

123) $8x + 9$ for $x = 5$

123) _____

124) $3x + 4y$ for $x = 8$ and $y = 2$

124) _____

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

125) _____

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

126) _____

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

127) _____

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

128) _____

129) $\frac{x}{4} + \frac{y}{4}$ for $x = 12, y = 32$ 129) _____

130) $4xy^2 - 6$ for $x = 2, y = 3$ 130) _____

131) $6y(2z - x)$ for $x = 9, y = 4, z = 6$ 131) _____

132) $\frac{6xy}{z}$ for $x = 6, y = 4, z = 2$ 132) _____

133) $x^4 - (y - z)$ for $x = 3, y = 3, z = 2$ 133) _____

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

134) Is 14 a solution of $p + 10 = 24$? 134) _____

135) Is 6 a solution of $6m + 4 = 42$? 135) _____

136) Is 7 a solution of $3x - 5 = 16$? 136) _____

137) Is 9 a solution of $4(r + 9) = 45$? 137) _____

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

138) $6x = 42$; {7, 8, 252} 138) _____

139) $7n + n = 64$; {8, 9, 512} 139) _____

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

140) The total of 145 and a number 140) _____

141) The sum of a number and 100 141) _____

142) 5 times a number 142) _____

143) The product of 6 and a number 143) _____

144) 22 subtracted from a number 144) _____

145) The difference of a number and 78 145) _____

146) 65 decreased by a number 146) _____

147) A number divided by 16 147) _____

148) The quotient of 56 and a number 148) _____

149) 9 less than 7 times a number 149) _____

150) 9 more than 8 times a number

150) _____