

8th grade summer packet

- Which of the following is an example of the distributive property?
 - $98 \times 1 = 98$
 - $3 + 92 = 95$
 - $72 + 51 = 51 + 72$
 - $6(16 + 4) = (6 \times 16) + (6 \times 4)$
- Which of the following is the largest?
 - 2.20
 - 0.022
 - 2.02
 - 0.22
- Which number is 16.584 rounded to the nearest whole number?
 - 16
 - 16.5
 - 16.6
 - 17
- Write $\frac{13}{100}$ as a decimal
 - 1300
 - 1.3
 - 0.13
 - 0.013
- Which is the formula for finding the perimeter of a rectangle?
 - $P = 2l + 2w$
 - $P = \frac{1}{2}bh$
 - $P = \pi r^2$
 - $P = lwh$
- An isosceles triangle has three congruent sides.
 - True
 - False
- A restaurant display case has the following tea bag selections and number of bags available for each kind.

Black Tea 15
Cinnamon 10
Green Tea 15
Lemon 4
Raspberry 6

What is the probability that a tea bag randomly selected from the case will be cinnamon?

a.

$$\frac{1}{50}$$

b. $\frac{1}{10}$

c. $\frac{10}{50}$

d. $\frac{1}{4}$

8. Your dinner bill at a restaurant is \$23.33 and you leave a tip of \$3.50. What percentage did you tip?
- 15%
 - 17%
 - 19%
 - 21%
9. After inspecting 40 computers, defects were found in 5 of them. What percentage of computers had defects?
- 12.5%
 - 15%
 - 20%
 - 40%
10. 43% of what number is 4300?
- 1849
 - 10,000
 - 18,490
 - 100,000
11. Evaluate: $-8 - 3$
- 5
 - 11
 - 5
 - 11
 - 24
12. One middle-school survey said 40% of seventh grade students preferred pizza for lunch. Another survey said $\frac{2}{5}$ of seventh grader students preferred pizza for lunch. Could both surveys be correct? Explain why.
- Yes
 - No
13. Shapes that have the same size and shape are said to be similar.
- True
 - False
14. The points where the sides of a polygon meet are called the vertices.
- True
 - False

15. Consider the list of golf scores:
71, 68, 72, 79, 80, 77, 84, 70, 92
What is a median, mean and range for the set?
- median=80, mean=77, range=24
 - median=82, mean=78, range=22
 - median=81, mean=77, range=23
16. What percent of 60 is 45?
- 133.3%
 - 85%
 - 75%
 - 63.5%
17. Two angles are _____ angles if the sum of their measures equals 90 degrees.
- supplementary
 - complementary
 - right
 - straight
18. The regular price of a cell phone is \$109.99. It is marked 25% off. Find the Sale Price.
- \$75.35
 - \$27.50
 - \$82.49
 - NH
19. Change the decimal to fraction and simplify fraction to lowest terms:
.08
- 2/25
 - 4/24
 - 6/48
 - NH
20. Jose missed 6 questions on a 25-question test. What percent did he get correct?
- 85%
 - 76%
 - 73%
 - NH
21. What is the place value of the 9 in the following number? 543219768
- millions
 - tens
 - thousands
 - units
 - hundred millions
22. what is the value of $j + p - 29$ if $j = 38$ and $p = 8$

- a. 1
- b. 13
- c. 17
- d. 7

23. $\frac{2}{3}x=10$

- a. $x=1\frac{2}{3}$
- b. $x=5$
- c. $x=15$
- d. $x=30$

24. One angle has 10° more than another angle.
The sum of the angles is 90° . How many degrees are in each angle?

- a. $80^\circ, 10^\circ$
- b. $40^\circ, 50^\circ$
- c. $45^\circ, 45^\circ$
- d. $30^\circ, 30^\circ$

25. What is the number of degrees in the third angle of the triangle.

_____ $80^\circ + 22^\circ$

- a. 258°
- b. 129°
- c. 32°
- d. 78°

26. $18 \div (-2) = \underline{\hspace{2cm}}$

27. The store is offering 30% off the baseball cap's original price of \$18.90. What is the dollar discount?

- a. \$5.67
- b. \$13.23
- c. \$6.56
- d. NH\$

28. Find the fraction by changing the percent to decimal to fraction. Simplify fraction to lowest terms.

80%

- a. $3/8$
- b. $6/7$
- c. $4/5$
- d. NH

29. Find the Percent by changing the fraction to a decimal to percent.

$23/25$

- a. 57%
 - b. 92%
 - c. 73%
30. what is the value of $a - b + 6$ if $a = 15$ and $b = 9$
- a. 30
 - b. 18
 - c. 0
 - d. 12
31. $6 + (-4) - (-8) = \underline{\hspace{2cm}}$
32. During November \$80 was spent on entertainment. In December \$33 was spent on entertainment. Find the Percent Change and if the change is an Increase or Decrease from November to December.
- a. 45% decrease
 - b. 45% increase
 - c. 32% decrease
 - d. NH
33. During September \$75 was spent on travel. In October the amount spent on travel was \$93. Find the Percent Change and state if the change is an Increase or Decrease from September to October.
- a. 42% decrease
 - b. 24% increase
 - c. 36% increase
 - d. NH3
34. Of 16 girls on the track team, 12 participate regularly. What percent participate regularly?
- a. 75%
 - b. 80%
 - c. 87%
 - d. NH
35. 52 is 50% of what number?
- a. 260
 - b. 96
 - c. 104
 - d. NH
36. what is the value of $3 + 2 \cdot 4$
- a. 24
 - b. 11
 - c. 9
37. One angle is twice another angle. The sums of the angle is 90° . How many degrees are in each angle?
- a. 45° ; 90°

- b. $15^\circ ; 30^\circ$
 - c. $30^\circ ; 60^\circ$
 - d. $20^\circ ; 25^\circ ;$
38. Which of these is not a type of triangle?
- a. acute
 - b. hypotenuse
 - c. straight
 - d. obtuse
39. George has 2 pounds of rice. How many ounces of rice does he have?
- a. 32
 - b. 20
 - c. 16
 - d. 2
40. $-67 + 29 =$ _____
41. You are a scientist. You are testing how much pesticides are in each of 5 different brands of sugar. You take a sample of $\frac{3}{4}$ of a cup from each, how much sugar do you have now?
- a. $3 \frac{3}{4}$
 - b. 23
 - c. $\frac{1}{2}$
 - d. $\frac{3}{4}$
42. What percent of 70 is 14?
- a. 12%
 - b. 20%
 - c. 9%
 - d. NH
43. 30% of 80 is what number?
- a. 26
 - b. 37
 - c. 24
 - d. NH
44. Give the place value of 2 in 455.021
- a. Thousandths
 - b. Tenths
 - c. Hundredths
 - d. NH
45. If you take 15 pictures on a 24-exposure roll of film, what fraction of the film have you used? Express your answer in lowest terms.

46. Multiplication is always done before division?
- True
 - False
47. Find the circumference of a circle with a radius of 10m.
- 6.28m
 - 62.8m
 - 628m
 - 6280m
48. What is the probability of flipping a coin and having it land on tails?
49. Write in ascending order:
- (a) 0, -4, 3, -6, -10, 2, -2
- _____
50. Which equation represents the sentence "The difference of 9 and x is 5."?
- $9 = x - 5$
 - $9 = 5 - x$
 - $9 - x = 5$
 - $x - 9 = 5$
51. The Melvilles sell records at a flea market every Saturday. On 4 Saturdays in June, they had a profit of \$30, lost \$20, lost \$40, and had a profit of \$60. How much was their profit or loss in June?
52. Sun Bright liquid detergent comes in three sizes. Which is the best buy?
- 840 ml for \$2.19
 - 1200 ml for \$2.89
 - 2880 ml for \$7.25
53. $1 \frac{10}{15} - 1 \frac{2}{3}$
- $3 \frac{1}{3}$
 - $\frac{7}{12}$
 - 0
 - 2
54. The radius of a circle is 8 centimeters (cm). What is the approximate circumference of the circle? (Use $\pi = 3.14$)
- 16 cm
 - 25 cm
 - 50 cm

- c.
- d. 201 cm

55. $-2 + (-9) - (-15) = \underline{\hspace{2cm}}$

56. $88 - 69 = \underline{\hspace{2cm}}$

57. 21% of 54 is what number?

- a. 2.57
- b. 38.89
- c. 11.34
- d. NH

58. Space Patrol ride tickets are numbered 1 to 300. Tickets whose numbers are factors of 300 give a free ride. Which tickets give a free ride?

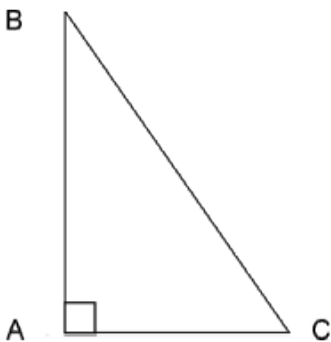
59. You have $\frac{5}{16}$ of a liter of milk left in the jug. You go to the store and buy 12 more liters. How much milk do you have now?

- a. 23
- b. $1 \frac{1}{16}$
- c. $12 \frac{5}{16}$
- d. $\frac{17}{16}$

60. $\frac{2}{3}$ divided by $\frac{1}{8}$

- a. $\frac{1}{3}$
- b. $\frac{1}{12}$
- c. 0
- d. $5 \frac{1}{16}$

61. What kind of triangle is shown below?



- a. equilateral
- b. isosceles
- c. right
- d. scalene

62. Volunteers raise money for charity by selling bags of peanuts. The nuts cost \$220.00 and sell for \$550.00. Four charities share the profit equally. How much does each one get?

63. Lou Johnson plays professional basketball. Last season Lou scored 24 three-point shots, 52 two-point shots, and 18 one-point foul shots. At the end of the season, Lou's career points totalled 728. How many career points did he have before the season began?
64. _____ - the distance around a circle
65. The average height of a male giraffe is 17 feet. What is his height in inches?
- 29 inches
 - 51 inches
 - 170 inches
 - 204 inches
66. Which variable expression represents the following phrase?
- "a number raised to the ninth power"
- $9n$
 - 9^n
 - n^9
 - $\frac{9}{n}$
67. _____ - the most frequently occurring number in a set of data
68. $\frac{1}{2} + \frac{3}{4} =$
- $1 \frac{1}{4}$
 - $3 \frac{2}{3}$
 - $\frac{4}{6}$
 - $\frac{2}{3}$
69. $21 - (-187) =$ _____
70. What is the value of the expression $\frac{24}{x}$ when $x = 8$?
- 3
 - 16
 - 32
 - 192
71. Bill cut a cake into 14 pieces and ate 3 of them. Carol cut a same size cake into 16 pieces and ate 5 of them. Who ate more?
72. A pizza costs \$7.95. How much would you pay for $\frac{5}{12}$ of the pizza?

73. Daniel spent $2\frac{1}{2}$ hours playing computer games on Saturday and $1\frac{1}{3}$ hours on Sunday. How much time did he spend playing computer games altogether that weekend?
74. "Brooklyn Skateboards " is advertising \$109 skateboards at 33% off. "Queens Skateboards" is advertising the same skateboard at $\frac{1}{3}$ off. Which is the better buy? Explain why.
- $\frac{1}{3}$ off is a better buy
 - 33% off is a better buy
75. $5 + 2 \cdot 3 =$
76. $12 - 7 + 2 + 12 \div 4$
77. $7\frac{3}{4} \div \frac{3}{16}$
78. Evaluate the expression: $70.2 + 4(3.5)$
79. Fred opens a bank account with \$100 in it. Each month his mother deposits another \$20 in the account and Fred withdraws \$8 to spend on comics. After a year how much is in the bank account?
80. Evaluate when $r = 4$ and $s = 6$: $(r + 1)^2 - s$
81. Evaluate the expression: $\frac{75 + 39}{4 \cdot 3}$
82. Write the multiples of 2 up to 24.
83. What does the word percent (%) mean in mathematics? Why do we use it?

84. How many faces does a cube have?

- a. 4
- b. 6

85. Find the area of a square when $s=19.5$

86. 121^1

87. Create a line below with a decimal in the center. Place the following values in the correct order on your number line below:

- tens
- hundredths
- thousandths
- tenths
- hundreds

88. A shopping center has six car parking floors below ground and, including the ground floor, has nine shopping floors. If the lift starts three floors below ground, goes up eight floors, goes down ten floors and then rises three floors what is the final position?

89. Solve for s :

$$3s + 7 - 5 = \frac{15}{3}$$

- a. $\frac{1}{3}$
- b. 1
- c. $\frac{7}{3}$
- d. 3

90. What is the value of the expression $x + y^2$ when $x = 3$ and $y = 5$?

- a. 28
- b. 64
- c. 34
- d. 13

91. What is the first step in evaluating the expression $15 - 12 \div 3$?

- a. Subtract 12 from 15.
- b. Divide 12 by 3.
- c. Subtract 3 from 12.
- d. Divide 3 by 12.

92. 7^3

93. Sally received \$100 for her birthday. She used $\frac{1}{4}$ of her money. How much money does she have now?

94. find the area of a square when $s=8$

95. Jameek rented a moving van for one day at a rate of \$30 per day plus \$0.25 per mile. Which of the following equations can he use to calculate c , the cost, in dollars, of renting the van for one day and driving it m miles?

- a. $c = 55m$
- b. $c = 30.25m$
- c. $c = 30 + 0.25m$
- d. $c = 0.25 + 30m$