**Milestone practice packet**

|  |  |
| --- | --- |
| Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |
| --- |
| 1. Multiply.**-10 × -55**A. -550 B. -55 C. 55 D. 550  |

|  |
| --- |
|   |
| 2. Simplify.-1.6 + 5.8 + -3.5A. 0.8 B. 0.7 C. 1 D. 1.1  |

|  |
| --- |
| 3. You are buying a picture for your mother that is marked down 10%. If the picture’s sale price is $29.00, how much did it cost originally?A. $3.22 B. $25.78 C. $32.22 D. $36.36  |

4. Last season, Ellen and Janet together won 32 tennis matches. Ellen won 8 more matches than Janet. How many matches did Ellen win?

A. 13
B. 16
C. 20
D. 25

|  |
| --- |
|  |
| 5. **A bottle of liquid dog vitamins indicates that a dog gets 2 drops of vitamins each day for every 5 pounds of body weight. How many drops of vitamins should a 30-pound dog get each day?** A. 2 B. 4 C. 12 D. 22  |

|  |
| --- |
| 6. **A bookcase in a classroom contains textbooks that weigh 0.8 pound each. The bookcase alone weighs 22.2 pounds. If the total weight of the books and the bookcase is 29.4 pounds, how many books are in the bookcase?** A. 10 B. 9 C. 24 D. 25 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |
| --- |
| 7. Which of the following **best** represents the location of point *A* on the number line shown below? https://www.georgiaoas.org/gdoeimages/ma04ma0604_wg0.jpg1. https://www.georgiaoas.org/gdoeimages/ma04ma0604_wg1.jpg
2. https://www.georgiaoas.org/gdoeimages/ma04ma0604_wg2.jpg
3. https://www.georgiaoas.org/gdoeimages/ma04ma0604_wg3.jpg
4. https://www.georgiaoas.org/gdoeimages/ma04ma0604_wg4.jpg

*.* |
|  |

|  |
| --- |
| 8. A certain car averages 28 miles per gallon. Gasoline costs $2.11 per gallon. Which of the following is **closest** to the number of miles the car would be expected to go on $250 worth of gasoline? A. 400 miles B. 7,000 miles C. 8,000 miles D. 3,000 miles  |

|  |
| --- |
| 9. Ralph simplified the expression https://www.georgiaoas.org/gdoeimages/ma04mahs23e_wg0.jpgWhich of the following properties of the real numbers did Ralph use? A. associative property of multiplication B. commutative property of multiplication C. distributive property D. multiplicative identity property *.* |

|  |
| --- |
|   |

|  |
| --- |
|   |

|  |
| --- |
| 10. Which of the following shows the numbers ordered from **least** to **greatest**?A. 0.004, 0.07, 0.6, 0.32 B. 0.004, 0.6, 0.07, 0.32 C. 0.004, 0.07, 0.32, 0.6 D. 0.004, 0.32, 0.07, 0.6  |

|  |
| --- |
| 11. Edwina bought a book for $15. She now has $47. How much money did Edwina have before she bought the book? A. $21 B. $34 C. $62 D. $73  |

|  |
| --- |
| 12. The cost of the field trip bus is to be shared equally by all 25 students on the bus. If the bus costs $57.50, how much does each student have to pay?A. $2.29 B. $2.21 C. $2.30 D. $2.32  |

|  |
| --- |
|  |

|  |
| --- |
| 13. In January Mary starts off with $50 in her checking account. During the month she deposits $235.89 and writes checks totaling $65.77. At the end of the month she decides to take half of the money left in the account and deposit it into her savings account. How much did she deposit in her savings account?A. $142.94 B. $165.83 C. $110.06 D. $240.12  |

|  |
| --- |
|   |

|  |
| --- |
|  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. Devon bought a tie. The tie cost $22.50 before tax. After tax, Devon spent $24.30. What was the percent of sales tax?A. 1.8% B. 1.94% C. 7.4% D. 8% \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|  |  |

|  |
| --- |
| 15. Evaluate 6*r* – 22 if *r* = 20. A. –2 B. 2 C. 98 D. 398  |

|  |
| --- |
|  |

|  |
| --- |
| *.* |

|  |
| --- |
| 16. Carl bought some packages of pens. He bought one package containing 6 pens and n packages containing 3 pens each. Which of the following expressions could be used to find the total number of pens that Carl bought? A. 7n B. 9n C. 6n + 3 D. 3n + 6  |

|  |
| --- |
| 17. Which of the following is equivalent to 5https://www.georgiaoas.org/gdoeimages/mimataa002219_wg0.jpg?A. 5.7 B. 5.78 C. 5.875 D. 6*.* |
|

|  |  |
| --- | --- |
|        | 18. Billy deposits $800 in a local bank. He knows that, due to interest, his money will be increased by 5% at the end of each year. How much money will Billy have at the end of two years, assuming he makes no deposits or withdrawals? |

A. $840 B. $882 C. $880D. $1,680  |

|  |  |  |
| --- | --- | --- |
| .

|  |  |
| --- | --- |
|        | 19. If a high school has 620 students and 41 of them play football, what is the **best** estimate of the percentage of students who play football? |

A. 6.6% B. 7.7% C. 15.1% D. 41% |

|  |
| --- |
|   |

|  |
| --- |
| 20. Michael’s math quiz required him to solve, if possible, the following algebraic equation:                      4*x* + 2*y* = *y*       he solved the equation this way:                         6*x* = *y*       Which statement explains what Michael did or should have done?A. he simplified the equation correctly. B. he added the variables incorrectly, and the answer is incorrect. C. he should have divided both sides by *x*, and the answer is incorrect. D.She should have multiplied the coefficients together, and the answer is incorrect.  |

|  |
| --- |
|  |

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|        | 21. The ratio of balloons to guests at a party is 12:5. If there are 40 guests, how many balloons are there? |

A. 12 B. 96C. 72 D. 480  |

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
| 22.      | What is another way to represent 3%? |

A. .3 B. 3 C. .03 D. https://www.georgiaoas.org/gdoeimages/mimataa902105_wg0.jpg |

|  |
| --- |
|   |

|  |
| --- |
| 23. To determine the fee charged to tow a car, a towing company uses the expression 0.7*d* + 25, where *d* is the distance between the pickup point and the drop-off location. If a car is towed 36 miles, how much will the towing company charge the customer?A. $39.20 B. $46.70 C. $50.20 D. $242.00  |

|  |
| --- |
|  |

|  |
| --- |
| 24. Tom reports that the ratio of teachers to students at South High School and North High School is the same. There are 45 teachers and 720 students at South High School. How many teachers are there at North High School if there are 480 students?A. 30 teachers B. 35 teachers C. 40 teachers D. 58 teachers  |

|  |  |  |  |
| --- | --- | --- | --- |
| 25.

|  |  |  |
| --- | --- | --- |
| 14 | < ? <  | 35 |

A. https://www.georgiaoas.org/gdoeimages/mpmataa66444_wg2.jpgB. https://www.georgiaoas.org/gdoeimages/mpmataa66444_wg3.jpgC. https://www.georgiaoas.org/gdoeimages/mpmataa66444_wg4.jpgD. https://www.georgiaoas.org/gdoeimages/mpmataa66444_wg5.jpg |

|  |
| --- |
| 26. Which is the value of *x* in the equation?2*x* – 7 = 31 A. 36 B. 26 C. 19 D. 13  |

|  |
| --- |
| 27.       Which mathematical expression means 6 more than the product of 4 and *x*?A. 4 + *x* + 6 B. 4÷ *x* + 6 C. 4*x* + 3 D. 4*x* + 6  |

|  |
| --- |
|  |

|  |
| --- |
|  28. A jet ski rental company charges a $40 deposit and $30 for each hour on the jet ski. Mark has $140 dollars. Write an inequality that represents the maximum number of hours that Mark can ride the jet ski. A. 70*h* https://www.georgiaoas.org/images/great_than_equal.gif140 B. 30*h* https://www.georgiaoas.org/images/great_than_equal.gif190 C. 40 + 30*h* https://www.georgiaoas.org/images/less_than_equal.gif140 D. 40 + 30*h* < 90  |

|  |
| --- |
|  |

|  |
| --- |
| 29. What is the value of (4*x* + 2*y* + 19) + (9*y* + 7*x* - 10)?A. 26*xy* B. 23*xy* + 9 C. 14*x* + 9*y* - 9 D. 11*x* + 11*y* + 9  |

|  |
| --- |
|  |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| 30. **What value for *t* makes this equation true?** https://www.georgiaoas.org/gdoeimages/va04ma0844_wg0.jpgA. 17 B. 31 C. 89 D. 103  |

|  |
| --- |
|  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. **What is the solution to https://www.georgiaoas.org/gdoeimages/va05alhs03_wg0.jpg**A. https://www.georgiaoas.org/gdoeimages/va05alhs03_wg1.jpgB. https://www.georgiaoas.org/gdoeimages/va05alhs03_wg2.jpgC. https://www.georgiaoas.org/gdoeimages/va05alhs03_wg3.jpgD. https://www.georgiaoas.org/gdoeimages/va05alhs03_wg4.jpg

|  |
| --- |
| 32. **In the figure below, the two triangular faces of the prism are right triangles with sides of length 3, 4, and 5. The other three faces are rectangles. What is the surface area of the prism?** https://www.georgiaoas.org/gdoeimages/gag10229_wg0.jpgA. 84 B. 72C. 96 D. 108  |

|  |
| --- |
| 33. Find the third angle of a triangle if two of the angles measure 31 and 88.A. 61 B. 64 C. 93 D. 116  |

|  |
| --- |
| 34. Which expression has the same value as 6(-6 + 3) + (-3)?A. 6(3) + (-3) B. 6(-3) + (-3) C. 6(-6) + 3 + (-3) D. 6(-6) + 6(3) + 6(-3)  |

|  |
| --- |
| 35. **In the diagram below, lines *l* and *p* intersect.** https://www.georgiaoas.org/gdoeimages/va04ma0830_wg0.jpg**If the measure of https://www.georgiaoas.org/gdoeimages/va04ma0830_wg1.jpgis https://www.georgiaoas.org/gdoeimages/va04ma0830_wg2.jpg, what is the measure of https://www.georgiaoas.org/gdoeimages/va04ma0830_wg3.jpg?** A. https://www.georgiaoas.org/gdoeimages/va04ma0830_wg4.jpgB. https://www.georgiaoas.org/gdoeimages/va04ma0830_wg5.jpgC. https://www.georgiaoas.org/gdoeimages/va04ma0830_wg6.jpgD. https://www.georgiaoas.org/gdoeimages/va04ma0830_wg7.jpg |

|  |
| --- |
| 36. The wheels on Bill's bicycle each have a radius of 32 centimeters. Which of the following is closest to the distance the bicycle moves along the ground in one complete revolution of the wheels? A. 35 cm B. 55 cm C. 110 cm D. 200 cm *.* |

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
| 37.        | Circle *O* is inscribed in square *EFGH*, as shown below.  |

 https://www.georgiaoas.org/gdoeimages/ma06mahs37e_wg0.jpgThe circumference of circle *O* is 20 centimeters. Which of the following is closest to the perimeter of square EFGH? A. 24 cm B. 25.5 cm C. 27 cm D. 28.5 cm *.* |

|  |
| --- |
| 38. In a triangle, one angle is 60degrees and another is 20degrees. The remaining angle must beA. right. B. acute. C. obtuse. D. complementary. |

|  |
| --- |
|  |

|  |
| --- |
| 39. Joe cut three shapes out of paper. He has two circles that are the same size and one rectangle with two sides equal in length to the circumference of the circles. Which shape can Joe MOST LIKELY form?A. cube B. cone C. prism D. cylinder  |
| 40. Ms. Talbot taught her class to make paper models of geometric figures. Each student created a closed figure with a square base, five vertices, and four triangular faces. Which geometric figure did Ms. Talbot's class create?A. Triangular Prism B. Rectangular Prism C. Triangular Pyramid D. Rectangular Pyramid  |

|  |
| --- |
|  |

|  |
| --- |
| 41. https://www.georgiaoas.org/images/1128.gifWhich edge is parallel to edge *X*?A. A B. B C. C D. D  |

|  |
| --- |
| 42. https://www.georgiaoas.org/images/319.gifWhat combination of shapes would you need to create this three dimensional shape?A. 2 squares, 2 rectangles B. 2 squares, 4 rectangles C. 4 rectangles D. 6 rectangles  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43. **Which solid could *not* have two parallel faces?** A. Cube B. Rectangular prism C. Pyramid D. Cylinder \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 44. What is the median of the numbers?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **12** | **7** | **22** | **16** | **31** |

A. 12B. 16C. 22D. 87 |

|  |
| --- |
| 45. Two coins are tossed at the same time. What is the probability they both land on tails?A. https://www.georgiaoas.org/images/i_1143/li/a3040.1.jpgB. https://www.georgiaoas.org/images/i_1143/li/a3051.1.jpgC. https://www.georgiaoas.org/images/i_1143/li/a3062.1.jpgD. https://www.georgiaoas.org/images/i_1143/li/a3073.1.jpg |

|  |
| --- |
| 46. **Maggie has a collection of the new quarters that commemorate the 50 states. There are 9 Georgia quarters, 8 Virginia quarters, and 7 Connecticut quarters. If Maggie randomly chooses one of these quarters, what is the probability it will be a Georgia quarter?** A. https://www.georgiaoas.org/gdoeimages/gaa11009_wg0.jpgB. https://www.georgiaoas.org/gdoeimages/gaa11009_wg1.jpgC. https://www.georgiaoas.org/gdoeimages/gaa11009_wg2.jpgD. https://www.georgiaoas.org/gdoeimages/gaa11009_wg3.jpg |
| 47. The line plot below shows the number of people in each student's household for a class of students. https://www.georgiaoas.org/gdoeimages/ma05ma0831_wg0.jpgWhat is the mean number of people in households for this class of students? A. 3 B. 3.5 C. 4 D. 6 *.* |

|  |
| --- |
| 48. Kyra will toss a number cube that has faces numbered 1 through 6. What is the probability that the cube will land with an even number showing on the top face? A. https://www.georgiaoas.org/gdoeimages/ma06ma0522_wg0.jpgB. https://www.georgiaoas.org/gdoeimages/ma06ma0522_wg1.jpgC. https://www.georgiaoas.org/gdoeimages/ma06ma0522_wg2.jpgD. https://www.georgiaoas.org/gdoeimages/ma06ma0522_wg3.jpg*.* |

|  |
| --- |
| 49. Jiro bowled 7 games in a tournament. The list below shows his scores for those 7 games. https://www.georgiaoas.org/gdoeimages/ma06ma0724_wg0.jpgWhat is the mode of Jiro's scores? A. 155 B. 157 C. 158 D. 160 *.* |
| 50. In Mr. Montgomery's class, there are 8 boys and 12 girls. If Mr. Montgomery selects 1 student from his class at random, what is the probability that the student will be a girl? A. https://www.georgiaoas.org/gdoeimages/ma06ma0818_wg0.jpgB. https://www.georgiaoas.org/gdoeimages/ma06ma0818_wg1.jpgC. https://www.georgiaoas.org/gdoeimages/ma06ma0818_wg2.jpgD. https://www.georgiaoas.org/gdoeimages/ma06ma0818_wg3.jpg*.* |

|  |
| --- |
|  |

|  |
| --- |
|  |
| 51. The test scores for Mrs. Jones's class were as follows: 90, 85, 66, 100, 82, 95, 80, 70, 90, 90, 84, 94, 78, 90, 50, 60, 80, 65.

|  |  |
| --- | --- |
|     | What is the range of the data? |

A. 90 B. 83 C. 81 D. 50  |

|  |
| --- |
| 52. Alice has scored 92, 72, and 79 on the last three mathematics tests. What is the average (mean) of these three test scores?A. 77 B. 79 C. 81 D. 92  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| 53. At a basketball game, 12 out of the first 40 people who enter the gym are wearing hats. If this sample is representative of the 250 people attending the game, about how many of them will probably be wearing hats? A. 65 people B. 70 people C. 75 people D. 80 people  |

|  |
| --- |
|  |
| 54. https://www.georgiaoas.org/images/844.gifWhat is the approximate median number of orange Skittles in a bag?A. 4 B. 6 C. 8 D. 12  |

|  |
| --- |
| 55. The five number summary for a set of data is shown. min: 1 Q1: 5 Q2: 24 Q3: 37 max: 45What is the interquartile range for this set of data?A. 44 B. 1-45 C. 32 D. 5-37  |

|  |
| --- |
|  |
| 56. **76, 79, 75, 77, 74** **For the data listed, the value 76.2 represents the —** A. median B. mode C. range D. mean  |

|  |
| --- |
| 57. The probability that a customer will bring 1, 2, 3, 4, 5, or 6 items to the express lane in a grocery store is shown in the chart below. https://www.georgiaoas.org/gdoeimages/ma03mahs26e_wg0.jpgWhat is the probability that a customer will bring **less than** 5 items to the express lane? A. 0.11 B. 0.31 C. 0.44 D. 0.75 *.* |

|  |
| --- |
|   |
| 58. **These are the sides of a number cube used in a game.** https://www.georgiaoas.org/gdoeimages/va03ma0838_wg0.jpg**Sam will win the game he is playing if he gets a number less than 3 the next time he rolls the number cube. What is the probability that Sam will win the game on his next roll?** A. https://www.georgiaoas.org/gdoeimages/va03ma0838_wg1.jpgB. https://www.georgiaoas.org/gdoeimages/va03ma0838_wg2.jpgC. https://www.georgiaoas.org/gdoeimages/va03ma0838_wg3.jpgD. https://www.georgiaoas.org/gdoeimages/va03ma0838_wg4.jpg |
| 59. https://www.georgiaoas.org/gdoeimages/va04ma0539_wg0.jpg**Which diagram shows all the possible combinations of 1 shirt, 1 pair of shorts, and 1 kind of shoes?** A. https://www.georgiaoas.org/gdoeimages/va04ma0539_wg1.jpgB. https://www.georgiaoas.org/gdoeimages/va04ma0539_wg2.jpgC. https://www.georgiaoas.org/gdoeimages/va04ma0539_wg3.jpgD. https://www.georgiaoas.org/gdoeimages/va04ma0539_wg4.jpg |

|  |
| --- |
| 60. Sean has a spinner and a bag of marbles. The spinner is evenly divided into 8 sections. The bag is filled with 7 different colored marbles. Sean will spin the spinner and randomly select a marble. How many possible outcomes does Sean have? A. 14 B. 28 C. 36 D. 56  |

 **Answer Key**1. D 41. C
2. B 42. D
3. C 43. C
4. C 44. B
5. C 45. C
6. B 46. B
7. D 47. C
8. D 48. D
9. C 49. D
10. C 50. B
11. C 51. D
12. C 52. C
13. C 53. C
14. D 54. C
15. C 55. C
16. D 56. D
17. C 57. C
18. B 58. B
19. A 59. C
20. B 60. D
21. B
22. C
23. C
24. A
25. D
26. C
27. D
28. C
29. D
30. C
31. D
32. A
33. A
34. B
35. C
36. D
37. B
38. C
39. D
40. D

*n*  |
|  |

 |

 |