

# Math Diagnostic Test

Level: G Name: \_\_\_\_\_

Grade: \_\_\_\_\_ Date: \_\_\_\_\_

1.  $55 \div 4 =$

- A 13                      B 13r3  
C 13r2                    D 14

2.  $4,307 - 3,168 =$

- A 1,149                    B 1,139  
C 1,039                    D 1,049

3. What is the value of the 6 in 6,472 ?

- A 6,000  
B 600  
C 60  
D 6

4. Which number sentence does not belong in the fact family for 2, 6, and 12 ?

- A  $2 \times 6 = 12$             B  $6 + 6 = 12$   
C  $12 \div 6 = 2$             D  $12 \div 2 = 6$

5.  $\begin{array}{r} \$7.86 \\ + \$5.76 \\ \hline \end{array}$

- A \$12.52  
B \$13.52  
C \$13.62  
D \$14.62

6. Jeff buys 3 pizzas for \$21. How much does each pizza cost?

- A \$6                      B \$19  
C \$7                      D \$20

7.  $\$6.37 \times 9$

- A \$54.23                    B \$54.73  
C \$57.33                    D \$58.33

8. Which is 0.36 written as a fraction?

- A  $\frac{36}{100}$                       B  $\frac{100}{36}$   
C  $\frac{36}{10}$                         D  $\frac{30}{10}$

9. Which number sentence is true?

- A  $81 - 15 = 20 + 46$   
B  $63 + 19 = 74$   
C  $100 - 66 = 44$   
D  $407 + 19 = 583 - 152$

10. Which group of numbers is in order from least to greatest?

- A 1,241 ; 987 ; 1,238  
B 1,238 ; 1,241 ; 987  
C 987 ; 1,238 ; 1,241  
D 1,241 ; 1,238 ; 987

11. Which is 6,701 rounded to the nearest thousand?

- A 6,000                    B 6,700  
C 6,800                    D 7,000

12. There are 9 oranges in each bag Jessica buys 3bags. How many oranges does she buy in all?

- A 12                      B 18  
C 24                      D 27

13. Which of the following is a composite number?

- A 2                      B 5  
C 13                     D 15

14. What is  $\frac{8}{10}$  written as a decimal?

- A 0.08                  B 8.1  
C 0.8                    D 810

15.  $81 \times 43 =$

- A 3483                  B 3583  
C 3273                  D 3383

16.  $3.09 - 1.3$

- A 1.79                  B 17.9  
C 2.96                  D 29.6

17. ● inches = 5 feet  
Rule : 12 inches = 1 foot

- A 60                      B 56  
C 48                      D 17

18. Which is the sum in simplest form ?

$$\frac{2}{10} + \frac{3}{10}$$

- A  $\frac{1}{10}$                       B  $\frac{1}{2}$   
C  $\frac{1}{5}$                         D  $\frac{2}{20}$

19. Which symbol makes the number sentence true?

$$56 \bigcirc 8 = 448$$

- A +                        B -  
C  $\times$                       D  $\div$

20. Which is the difference in simplest form?

$$\frac{5}{6} - \frac{1}{2} =$$

- A  $\frac{2}{6}$                         B  $\frac{1}{4}$   
C  $\frac{1}{3}$                         D  $\frac{1}{2}$

21. Compare the fractions.

|               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |
| $\frac{1}{3}$ |               | $\frac{1}{3}$ |               |               |

$$\frac{5}{8} \bigcirc \frac{2}{3}$$

- A >                        B <  
C =                        D ?

22. Which is a name for this figure?



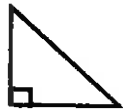
- A quadrilateral      B pentagon  
C hexagon              D octagon

23. Round to the nearest hundred thousand, then add.

$$\begin{array}{r} 280,444 \\ + 624,142 \\ \hline \end{array}$$

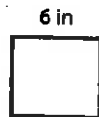
- A. 800,000      B. 900,000  
C. 880,000      D. 904,000

24. Which is the name for this triangle?



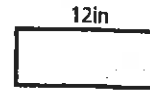
- A scalene              B equilateral  
C right                  D isosceles

25. Which is the area of this figure?



- A 12 square units      B 24 square units  
C 36 square units      D 42 square units

26. If the perimeter of this rectangle is 38, what is the width?

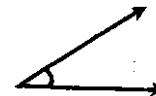


- A 5                      B 6  
C 7                      D 8

27. The area of a rectangle is 126 square feet and two of its sides are 18 feet long. How long are the other two sides?

- A 6 feet              B 7 feet  
C 8 feet              D 9 feet

28. Which statement is true about this figure?



- A The rays form a right angle  
B The angle is less than a right angle.  
C The angle is greater than a right angle  
D The rays form a triangle

29. Which is a rule for this table?

|                |   |    |    |    |    |
|----------------|---|----|----|----|----|
| <b>Insects</b> | 1 | 2  | 3  | 4  | 5  |
| <b>Legs</b>    | 6 | 12 | 18 | 24 | 30 |

- A Multiply insects by 6  
B Add 5 to insects  
C Subtract 5 from legs  
D Divide insects by 6

For 30-31, use the following information.

Michael rolled a cube numbered 1, 2, 3, 3, 3, 4. He rolled the cube 25 times and recorded the results in this tally table.

| OUTCOMES |       |
|----------|-------|
| Number   | Tally |
| 1        |       |
| 2        |       |
| 3        |       |
| 4        |       |

30. Predict which number is most likely to be rolled.

- A 1                      B 2  
C 3                      D 4

31. Which is not a possible outcome?

- A 2                      B 3  
C 4                      D 5

32. Which is a name for this figure?



- A square pyramid  
B rectangular prism  
C cube  
D cone

33.  $5\frac{7}{8} - 2\frac{1}{4}$

- A  $3\frac{3}{8}$                       B  $2\frac{20}{32}$   
C  $3\frac{5}{8}$                       D  $7\frac{3}{8}$

34.  $1\frac{5}{16} + 2\frac{1}{8}$

- A  $3\frac{7}{16}$                       B  $2\frac{7}{16}$   
C  $3\frac{6}{24}$                       D  $2\frac{6}{8}$

35.  $273 \times 163$

- A 44489                      B 44499  
C 44509                      D 51269

For 36, 37, David's test scores were:

**99, 99, 100, 104, 89**

36. What is the mean?

- A 98                      B 98.1  
C 98.2                      D 98.3

37. What is the mode of David's scores?

- A 99                      B 100  
C 101                      D 102

38. Which of the following is a prime number?

- A 81                      B 99  
C 51                      D 53

39. It takes 170 minutes to drive from Sam's house to his grandmother's.

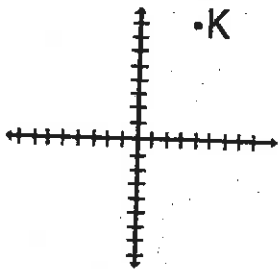
How many hours and minutes is that?

- A 2 hours and 20 minutes  
B 2 hours and 30 minutes  
C 2 hours and 40 minutes  
D 2 hours and 50 minutes

40. Which of the following fractions are equivalent?

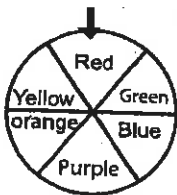
- A  $\frac{3}{2}$      $\frac{2}{3}$                       B  $\frac{4}{8}$      $\frac{1}{2}$   
 C  $\frac{3}{5}$      $\frac{4}{10}$                       D  $\frac{5}{7}$      $\frac{10}{21}$

41. What is the coordinate of point K in the following graph?



- A (5,5)  
 B (8,4)  
 C (4,8)  
 D (5,8)

42. If the wheel is spinning at random, what is the probability of the arrow pointing to a red area when the wheel stops?



- A  $\frac{1}{4}$                                       B  $\frac{1}{5}$   
 C  $\frac{1}{6}$                                       D  $\frac{1}{7}$

43.  $5.27 + 6.3 =$

- A 11.3                                  B. 11.57  
 C 5.9                                    D 5.93

44. What type of graph is best to show changes in population?

- A bar graph  
 B double-bar graph  
 C line graph  
 D stem-and-leaf plot

45. Find the equation that is a rule for the table.

| In Put | Out Put |
|--------|---------|
| a      | b       |
| 25     | 5       |
| 30     | 6       |
| 35     | 7       |
| 40     | 8       |

- A  $a \times 5 = b$                                   B  $35 \div a = b$   
 C  $a \div 5 = b$                                   D  $a \times 25 = b$

46. Find the value of the expression.

$$(16 + 14) \div 5$$

- A 30                                      B 35  
 C 6                                        D 7

47. How much more does the Cheese sandwich cost than the tuna sandwich?

| Sandwich Menu |         |
|---------------|---------|
| Tuna          | \$ 4.63 |
| Ham           | \$ 3.25 |
| Cheese        | \$ 2.48 |

- A \$ 7.11                                      B \$ 5.73  
 C \$ 1.38                                      D. \$ 2.15

48. It takes Julia 40 minutes to do all her piano lesson. She has to meet her friend at the library at 2:50 p.m. How much free time will she have if she starts her piano lesson at 1:20 p.m.?

- A. 40 min
- B. 50 min
- C. 60min
- D. 70min

49. 7days = 1week  
How many days are in 9 weeks?

- A. 50 days
- B. 60 days
- C. 63 days
- D. 65 days

50. What type of graph is best to compare the number of boxes of food collected by six different friends?

- A bar graph
- B double-bar graph
- C line graph
- D line plot