

Math Computation

(Gr. 7)

Ⓐ

DIRECTIONS:

This section is made up of math problems. Read each problem carefully and then mark your answer on the answer sheet. A sample problem is shown below.

Math Computation Sample S1

$$\begin{array}{r} \text{S1. } 12 \\ + 6 \\ \hline \end{array}$$

- A. 6
- B. 15
- C. 18
- D. 20

The correct answer is C. Find Math Computation Sample S1 on your answer sheet. Fill in the circle with the letter C as shown below.

S1. Ⓐ Ⓑ ● Ⓓ

- ▲ You will have **40 MINUTES** to complete the problems in this section.
- ▲ You may write _____ on scratch paper, but you must mark your answers on the answer sheet.
- ▲ There is only one correct answer for each problem.
- ▲ If you change your mind about an answer, erase it and fill in the new one.
- ▲ Do not spend too much time on any one problem. Work on as many problems as you can.
- ▲ You may **not** use a calculator to solve the problems.
- ▲ Mark your answers on the section of the answer sheet that says MATH COMPUTATION.

Do you have any questions?



DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

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1. $624 \div 146 =$

- A. 4
- B. 4 R40
- C. 4 R140
- D. 5

2. $7^3 =$

- A. 10
- B. 21
- C. 343
- D. 2,187

3. Simplify.

$2(7 - 3)$

- A. 6
- B. 7
- C. 8
- D. 11

4. $10.944 \div 0.32 =$

- A. 34
- B. 34.2
- C. 64
- D. 164

5. $15 \times 333 \times 801 =$

- A. 1,149
- B. 4,995
- C. 5,796
- D. 4,000,995

6. $3 \div \frac{1}{2} =$

- A. $\frac{3}{2}$
- B. 3
- C. $\frac{7}{2}$
- D. 6

7. $4 - 2\frac{7}{8} =$

- A. $\frac{1}{8}$
- B. $1\frac{1}{8}$
- C. $2\frac{1}{8}$
- D. $6\frac{7}{8}$

8. $25^3 =$

- A. 28
- B. 125
- C. 625
- D. 15,625

9. $\sqrt{16} =$

- A. 4
- B. 6
- C. 8
- D. 16

10. 4 is a square root of which number?

- A. 2
- B. 4
- C. 16
- D. 24

11. 1 is a square root of which number?

- A. 1
- B. 2
- C. 10
- D. 100

12. $3\frac{1}{2} \div \frac{1}{4} =$

- A. $\frac{7}{8}$
- B. 13
- C. $13\frac{1}{2}$
- D. 14

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13. Simplify.

$$13 + 28 \div 4 - 5$$

- A. -28
- B. -15
- C. 5.25
- D. 15

14. Simplify.

$$-12 - 8 \div 4 + 6$$

- A. -12.8
- B. -8
- C. -2
- D. 1

15. Simplify.

$$(6x + 3) - (2x + 4)$$

- A. $4x - 1$
- B. $4x + 1$
- C. $8x + 7$
- D. $9x - 6x$

16. If $n/5 = 17$, which inverse operation will find n ?

- A. addition
- B. subtraction
- C. multiplication
- D. division

17. $\sqrt{17}$ is approximately equal to ____.

- A. 0.14
- B. 4.12
- C. 8.50
- D. 289.00

18. The prime factors of 135 are ____.

- A. 3 and 5
- B. 5 and 9
- C. 9 and 15
- D. 5 and 27

19. The prime factors of 112 are ____.

- A. 1 and 112
- B. 2 and 4
- C. 2 and 7
- D. 2 and 56

20. If $8(n - 5) = 27$, then $n =$

- A. $2\frac{3}{4}$
- B. 4
- C. $8\frac{3}{8}$
- D. 67

21. $0.515 \times 0.02 =$

- A. 0.0103
- B. 0.1030
- C. 1.0300
- D. 103

22. Simplify.

$$(8 - y) + 4$$

- A. $-y + 4$
- B. $-y + 12$
- C. $-4y + 8$
- D. $-4y + 32$

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23. If $\frac{3n}{5} = 81$, then $n =$

- A. $16\frac{1}{5}$
- B. 27
- C. $48\frac{3}{5}$
- D. 135

24. If $\frac{3}{4}x + \frac{1}{2} = 10$, then $x =$

- A. $7\frac{1}{2}$
- B. $8\frac{3}{4}$
- C. $12\frac{2}{3}$
- D. $13\frac{1}{3}$

25. $\sqrt{10}$ is approximately equal to ____.

- A. 2.50
- B. 3.00
- C. 3.16
- D. 5.00

26. $2\frac{4}{7} \times 6\frac{2}{3} =$

- A. $12\frac{8}{21}$
- B. $12\frac{2}{5}$
- C. $13\frac{5}{21}$
- D. $17\frac{1}{7}$

27. Simplify.

$$(34d + 10 - 15d) - (9d - 9 + 4)$$

- A. $15d$
- B. $10d + 5$
- C. $10d + 15$
- D. $28d + 5$

28. Simplify.

$$\frac{2}{3} \left(\frac{6}{5} + 12 \right) - 1$$

- A. $11\frac{2}{5}$
- B. $9\frac{2}{5}$
- C. $8\frac{4}{5}$
- D. $7\frac{4}{5}$

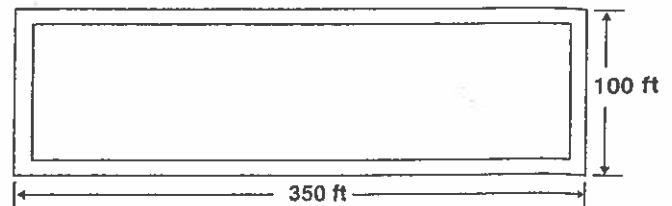
29. If $(9a - 2a) + 6 = 27$, then $a =$

- A. 3
- B. 4.91
- C. 7
- D. 21

30. If $2(3y - 4) - 5 = 7y + 25 - (4y + 8)$, then $y =$

- A. -6
- B. $6\frac{2}{3}$
- C. 10
- D. $11\frac{2}{3}$

31. Miguel is making pudding. The recipe yields 6 servings and calls for $2\frac{1}{2}$ cups of milk. How many cups of milk will Miguel need for 18 servings of pudding?
- A. 3
B. $5\frac{1}{2}$
C. $7\frac{1}{2}$
D. 15
32. At the Junior Olympics, Jacob ran the 500-yard dash in 80 seconds. Juan's time for the same distance was t seconds less than Jacob's. Which expression would accurately calculate Juan's time?
- A. $80 + t$
B. $80 \div t$
C. $t - 80$
D. $80 - t$
33. Mr. Raymond, a music teacher, wants to know how many boys and girls are in his marching band. There are 2 girls for every 3 boys. If there are 75 boys in the marching band, how many girls are there?
- A. 25
B. 50
C. 100
D. 125
34. Nick has twice as many CDs (compact discs) as Adam. Adam has 32 CDs. Which equation will determine how many CDs, d , Nick has?
- A. $d = 2 \times 32$
B. $2d = 32$
C. $d = 32 + 2$
D. $d + 2 = 32$
35. During a period of cold weather in Minnesota, the temperature on Monday was 18°F . The temperature dropped 22 degrees on Tuesday. On Wednesday it went up 7 degrees and then increased another 12 degrees on Thursday. What was the temperature on Thursday?
- A. -22°F
B. 1°F
C. 15°F
D. 59°F
36. Sharon spent \$35.00 on a jacket, \$12.00 for lunch, and \$24.50 on new shoes. If she started with \$90.00, how much did she have left?
- A. \$18.50
B. \$19.00
C. \$71.50
D. \$72.00
37. Eric earned \$32.00 for doing some chores around the house. He gave his sister \$7.00. He then went to the music store and bought 3 compact discs for \$5.50 each. How much money did Eric have left?
- A. \$8.50
B. \$15.50
C. \$19.50
D. \$25.00
38. The rectangle below shows a walking path around Jenn's neighborhood.



If Jenn walked around the neighborhood twice, how far did she walk?

- A. 700 feet
B. 900 feet
C. 1,800 feet
D. 3,500 feet