

TEST NAME: **6th**
TEST ID: **3913**
GRADE: **SIXTH GRADE**
SUBJECT: **Mathematics**
TEST CATEGORY: **Common Classroom**

Student: _____

Class: _____

Date: _____

1. Which expression has the *smallest* value?

A. $|-19|$

B. $|-34|$

C. $|22|$

D. $|47|$

2. Ramona ordered 20 pizzas for a party, figuring that each student at the party will eat $\frac{3}{8}$ of a pizza. If she's planning on having 60 students at the party, does Ramona have enough pizza?

Show your mathematical reasoning.

3. A shoreline is changing -9 cm each year due to erosion. What is the change in the shoreline over 3 years?

A. 27 cm

B. -27 cm

C. -3 cm

D. 3 cm

4. Ron spends 3 hours painting a picture. Ashley spends $2\frac{2}{3}$ as long creating a sculpture. How long does Ashley work on her sculpture?

A. $5\frac{2}{3}$ hours

B. $1\frac{1}{8}$ hours

C. $\frac{8}{9}$ hour

D. 8 hours

5. Sue has \$1.75 in quarters, dimes and nickels. She has the same number of quarters and dimes.

The dimes are worth \$0.40 in all.

Part A: How many coins are dimes or quarters? Explain.

Part B: What is the total value of the nickels? Justify your answer.

Part C: Write and solve an equation to determine how many nickels Sue has.

Equation: _____

6. $(-5) \times (7) \times (-2) =$

- A. -70
- B. -14
- C. 14
- D. 70

7. Ten twelfths of the 7th grade students, which is 640 students, like to go to the movies on Friday nights. How many students are in the seventh grade total?

8. What is the value of the expression $(-8)^2$?
- A -64
 - B 64
 - C 16
 - D -16
9. Ten twelfths of the 7th grade students, which is 640 students, like to go to the movies on Friday nights. How many students are in the seventh grade total?
10. The New York Giants' football team scored 4 touchdowns in their first game, 3 in their second game and 7 in their third game. A touchdown is worth 6 points. Write an expression and determine how many points the team scored in all three games.
- Answer:** _____
11. Taylor draws a square that has a side that measures 35.2 mm. What is the perimeter of the square?
- A 70.4 mm
 - B 105.6 mm
 - C 140.8 mm
 - D 1239.04 mm
12. The value of Acme Stock decreased a total of \$40 over the last 5 days. What integer represents the average decrease in stock value each day?
- A -5
 - B -8
 - C -20
 - D -200

13. Simplify:

$$8\left(6 + \frac{1}{4}\right)$$

A. $14\frac{1}{4}$

B. $49\frac{1}{2}$

C. 50

D. $48\frac{1}{4}$

14. Marta earns \$8.76 per hour at her job. Last week, she worked for 32.5 hours. On average, if Marta worked 5 days last week, how much did she earn **each day**?

15. The temperature fell a total of 36°F in 9 hours. If the temperature fell at the same rate every hour, which integer represents the change in temperature each hour?

A. -324°F

B. -27°F

C. -4°F

D. 45°F

16. A stock in the stock market was worth 5 points when it first came on the market. It then rose 4 points, dropped 3 points, and then dropped 2 more points by the end of the day. Where did the stock end?

A. 9 points

B. 6 points

C. 5 points

D. 4 points

17. Stanley and some friends are selling candy to raise money for a trip. Their goal is to raise \$500.

Marty raises $\frac{1}{3}$ of the money that they need.

Hope raises $\frac{1}{6}$ of the money that they need.

Natasha raises 20% of the money.

How much money does Stanley need to raise?

Show your work.

18. It's the morning of a school carnival and there are 28 cakes for sale. Cakes are being sold by the whole and by the slice.

Families arrive and buy a total of $12\frac{3}{4}$ cakes by noon. Another

$7\frac{1}{4}$ cakes are sold by the end of the day. How many cakes were sold in all?

Show all work.

19. $|9 - 5| - |6 - 8| =$

A. -6

B. -2

C. 2

D. 6

20.

Jamie bought $3\frac{1}{2}$ pounds of lunch meat for a ladies luncheon. If she only ended up using $2\frac{1}{4}$ pounds, how much lunch meat was left?

A. $\frac{3}{4}$ pound

B. $1\frac{1}{4}$ pounds

C. $1\frac{1}{2}$ pounds

D. $1\frac{3}{4}$ pounds

21. A SCUBA diver is 200 feet below sea level.

Part A: Write a rational number to describe the diver's depth.

Answer: _____

Part B: In order to avoid decompression sickness, the diver must come up at a rate of $\frac{33}{60}$ feet per second.

How long will it take the diver to safely reach the surface? Show your work and round your answer to the nearest second.

Answer: _____

22. Which expression has a value of -24?

A. $-18 + 14$

B. -8×3

C. -6×-4

D. $48 \div 2$

23. Which expression is true if the result is 12?

A. $4(3 + 2)$

B. $4(3 - 1)$

C. $4(5 - 2)$

D. $4(2 + 2)$

24. Evaluate $|-8| - |-2| + |-3|$

A. 13

B. -13

C. -9

D. 9

25. Lyla has \$5.00 to spend. She wants to buy 6 bagels. A bagel costs \$0.60 each.

Part A: How much does it cost for the 6 bagels?

Total Cost: _____

Part B: Does Lyla have any money left over? Explain your answer.

26. If the values of the expressions below are plotted on a number line, which expression would be closest to five?

A. $|-4|$

B. $|-18|$

C. $|7|$

D. $|16|$

27. What is the additive inverse of -9?

A. -9

B. 81

C. 9

D. -81

28. Which of the following is equivalent to $1\frac{5}{8}$?

- A. 0.158
- B. 1.625
- C. 1.58
- D. 15.8

29. A submarine at -28 feet dives 40 feet. What is the submarine's elevation after the dive?

- A. 68 feet
- B. 12 feet
- C. -12 feet
- D. -68 feet

30. $-20 \div 5$

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

31. Ms. Smith's special account has a balance of \$43.00. She wrote a check for \$50.00. What is her new balance?

- A. \$93.00
- B. \$7.00
- C. -\$7.00
- D. -\$93.00

32. In one week, Anne borrowed $\frac{5}{12}$ of her sister's salary to pay her water bill. In the next week, Anne borrowed another $\frac{2}{9}$ of her sister's salary to pay her electric bill. Which integer represents how much Anne borrowed from her sister?

A. $-\frac{7}{21}$

B. $\frac{23}{36}$

C. $\frac{7}{21}$

D. $-\frac{23}{36}$

33. Simplify $14 - (-11)$

A. -25

B. -3

C. 3

D. 25

34. What is the *absolute value* of a number?

A. its distance from zero on a number line

B. its opposite

C. its value as an integer

D. its form as a fraction

35. Find the average of 10, -16, 8, 5, -20, -5, and -3.

- A. -5
- B. -3
- C. 10
- D. 3

36. Shin has a balance on her credit card of \$212.45. She writes a check for \$165.45.

After she has paid, how much more money will she need to pay to have zero balance?

- A. \$47
- B. \$165.45
- C. \$377.90
- D. \$118.45

37. Ellen draws a square that has a side that measures 35.2 mm. What is the perimeter of the square?

- A. 70.4 mm
- B. 105.6 mm
- C. 140.8 mm
- D. 1239.04 mm

38. Which of the following statements is not true?

A. $\frac{1}{2} < 0.6$

B. $0.75 > \frac{2}{3}$

C. $0.8 = \frac{4}{5}$

D. $-\frac{1}{4} > -0.2$

39. Vinny's Pizzeria made a profit of \$485.00 today. They made a profit of \$325.75 yesterday. The day before yesterday Vinny's had a profit of \$450.75.

Part A: What was the average profit Vinny's made **each day**, over the last three days?

Answer: _____

Part B: If Vinny's was only open for 10.5 hours **today**, how much profit did they earn **each hour**?

Answer: _____

Part C: Justify **why** you believe your answer is correct for part B. Use correct math vocabulary.

40. Sara borrows \$56 from her mother to buy a new pair of jeans. If Sara decreases her debt by \$4 each week, how many weeks will it take her to pay off the whole amount she owes her mother?

A. 15 weeks

B. 16 weeks

C. 12 weeks

D. 14 weeks

41. On January 1, Rose's bank balance was \$200. During the month, she wrote checks for \$115.25 and \$350.00 and made one deposit of \$150.50. Which best represents her checking account balance at the end of the month?

- A. \$815.75
- B. -\$114.75
- C. -\$415.75
- D. \$114.75

42. What must be the value of x to make the statement true?

$$5 - x + 4 - 2 = 0$$

- A. 5
- B. 7
- C. -5
- D. -7

43. Sammie has prepaid \$1.65 to the hot lunch program. She bought lunch for \$2.35. How much money does she owe to the hot lunch program?

- A. -\$0.70
- B. \$4
- C. -\$4
- D. \$0.70

44. Evaluate the following expression:

$$3(4 - 2) - 4(2 + 9)$$

- A. -38
- B. 38
- C. 11
- D. 50

45. Mari bought $124\frac{7}{20}$ feet of fabric to make some curtains. What is the length of the fabric written as a decimal?

- A. 124
- B. 124.35
- C. 124.4
- D. 124.3

46. The New York Giants' football team scored 4 touchdowns in their first game, 3 in their second game and 7 in their third game. A touchdown is worth 6 points.

Part A: Write an expression that shows how many points the team scored in all three games.

Answer: _____

Part B: Show how you use the Distributive Property to solve. How many points did the New York Giants score?

Answer: _____

47. In the recent economic recession, Eduardo lost money. His account is -\$465 from his original balance. How much money will he have to deposit in order for it to be back to where the account started?

- A. -\$465
- B. \$465
- C. \$930
- D. -\$930

48. Evaluate: $(-2)(3)(-4)$

- A -24
- B. 24
- C. -3
- D. -9

49. Consider the subtraction problem $7 - (-2)$.

Part A: Write the corresponding addition problem.

Answer: _____

Part B: Show $7 - (-2)$ on a number line.



Part C: Describe a real-world situation that could be represented by $7 - (-2)$.

50. The temperature decreased 20 degrees over the last 4 days. What integer represents the average decrease in temperature over the last 4 days?

- A 80
- B. -80
- C. 5
- D. -5

51. Which of the following division problems has a result that is negative?

A. $-10 \div (-2)$

B. $(-9) \div 3$

C. $8 \div 4$

D. $|-6| \div |3|$

52. Find the solution to the problem below:

$$(5 + 6 - 2 + 6) \div (-3)$$

A. 5

B. 0

C. 1

D. -5

53. Evaluate $a(b - c)$ if $a = -3$, $b = 2$, $c = 5$

A. 9

B. -9

C. 21

D. -6

54. Harry's dog weighs $12\frac{7}{8}$ pounds. What is Harry's dog's weight written as a decimal?

A. 12.7

B. 128.75

C. 12.875

D. 12.9

55. Evaluate: $| -9 | + | 11 | - | -15 | + | -6 |$

- A. 11
- B. 41
- C. 10
- D. -19

56. Consider the rational numbers $\frac{2}{3}$ and $-\frac{4}{5}$.

Part A: Use division to convert both numbers to their decimal equivalents. *Show all work.*

Part B: How are the resulting decimal numbers alike? How are they different? Explain, using correct mathematical vocabulary.

57. Laura paid \$27 for three books. If all of the books cost the same, how much did one book cost?
- A. \$24
 - B. \$9
 - C. \$81
 - D. \$0.90

58. The value of Acme Stock decreased \$40 over the last 5 days. What integer represents the average decrease in stock value each day?
- A. -5
 - B. -8
 - C. -20
 - D. -200
59. A shoreline is changing -3 centimeters each year due to erosion. What is the change in the shoreline over 6 years?
- A. -18 cm
 - B. -9 cm
 - C. -3 cm
 - D. -2 cm
60. Frank lost 5 points for not completing his homework, 3 points for talking, and 2 points for chewing gum. This happened 4 days in a row. Which expression represents the amount of points Frank lost.
- A. $5(4 + 3 + 2)$
 - B. $5(-4 \times (-3) \times (-2))$
 - C. $4(-5 + (-3) + (-2))$
 - D. $4(5 + 3 + 2)$
61. The temperature decreased 20 degrees over the last 4 days. Which integer represents the average daily decrease in temperature?
- A. 80
 - B. -80
 - C. 5
 - D. -5

62. The price of a share of stock in ABC Company started the day at \$27, rose \$6 the first hour, dropped \$4 the second hour, dropped \$1.50 the third hour, and dropped \$5 the fourth hour. Which of the following sentences describes the above statement?

- A. $27 + 6 + 4 + 1.50 + 5$
- B. $27 + 6 + (-4) + 1.50 + (-5)$
- C. $27 + 6 + (-4) + (-1.50) + (-5)$
- D. $27 + (-6) + (-4) + (-1.50) + 5$

63. Mary purchased $3\frac{1}{2}$ pounds of bananas. If a loaf of banana bread requires $\frac{3}{4}$ pounds of bananas, how many loaves of banana bread can she make with the bananas?

64. Simplify:

$$\frac{10}{12} + \frac{4}{6} \left(3 \cdot \frac{1}{2} \right) - \frac{6}{8}$$

65. The temperature decreases a total of 26.4 degrees Celsius over 2.2 days in Aruba in the middle of the winter. Write a number that represents how much the temperature changes each **hour**.

66. Paul owes his father \$10.75. He borrows \$5.50 more from his father. Which of the following best represents Paul's debt to his father?

- A. \$16.25
- B. -\$16.25
- C. -\$5.25
- D. \$5.25

67. It's the morning of a school carnival and there are 28 cakes for sale. Cakes are being sold by the whole and by the slice.

Families arrive and buy a total of $12\frac{3}{4}$ cakes by noon. Another $7\frac{1}{4}$ cakes are sold by the end of the day. How many cakes were left over?

Show all work.

68. The Panthers lost 6 yards on their first play and lost another 8 yards on their next play. What was their net result in yards after these two plays?

- A. -14 yards
- B. -2 yards
- C. 2 yards
- D. 14 yards

69. The Panthers lost 6 yards on their first play and lost another 8 yards on their next play. What was their net result in yards after these two plays?

- A. -14 yards
- B. 2 yards
- C. 14 yards
- D. -2 yards

70. Which of the following is the correct solution to the problem below?

$$-\frac{9}{3} + \frac{51}{-17}$$

- A. 1
- B. -3
- C. 0
- D. -6

71. The temperature on Sunday was 87°F. On Saturday the temperature was 4°F higher. On Friday the temperature was 7°F lower than on Saturday. What was the temperature on Friday?

- A. 91° F
- B. 84° F
- C. 98° F
- D. 83° F