

LEVEL



NUMBER WORLDS™

Accelerate Math Success

Assessment

Name _____ Date _____

Unit Pretest

Circle the letter of the correct answer.

1. Mr. Morse poured a 32-ounce bottle of juice into 4 glasses. Which operation is shown in this situation?

A Addition
B Subtraction
C Division
D Multiplication

2. Which algebraic expression matches this situation?

Our new computer is 3 times faster than our old one. How fast is the new computer?

A $3 + f$
B $f - 3$
C $f \div 3$
D $3 \times f$

3. What is the value of $3^2 + 4 - m \div 2$ when $m = 8$?

A 9
B 5
C 4
D 8

4. If $n + 6 = 15$, then $n =$

A 21
B 9
C 90
D 6

5. If $\frac{n}{6} = 7$, then $n =$

A 36
B 67
C 13
D 42

6. Lulu finished a race in 42 minutes. Last year, she took 3 minutes longer. Which equation can be used to find her finishing time last year?

A $42 - 3 = x$
B $42 + 3 = x$
C $42 \times 3 = x$
D $42 \div 3 = x$

Circle the letter of the correct answer.

7. Which operations are needed to solve the equation $2n + 8 = 20$?

A Subtract 20 and divide by 8.
B Add 12 and divide by 2.
C Subtract 8 and divide by 2.
D Add 12 and divide by 8.

8. If $\frac{t}{3} + 4 = 9$, what is the value of t ?

A 15
B 5
C 12
D 3

9. Which operation is needed to isolate the quantity in parentheses in this equation?

$$5(b + 7) = 45$$

A Divide by 5.
B Add 7.
C Subtract 45.
D Multiply by 7.

10. If $8(g + 3) = 32$, then what is the value of g ?

A 21
B $4\frac{3}{8}$
C 1
D 7

11. A geology kit costs \$85. Sophia has \$25 and plans to save \$5 a week until she can pay for the kit. How many weeks will it take before she can buy the geology kit?

A 5 weeks
B 12 weeks
C 15 weeks
D 17 weeks

12. A tower is 384 feet tall. The stairway to the top is divided into 32 sections. What is the height of each section of stairway?

A 14 feet
B 64 feet
C 16 feet
D 12 feet

13. A truck is carrying 8 boxes that weigh 25 pounds each and 1 box that weighs 45 pounds. How much are the boxes all together?

A 200 pounds
B 405 pounds
C 245 pounds
D 630 pounds

Name _____ Date _____

Circle the letter of the correct answer.

14. If $x + 5 > 21$, what is x ?

- A $x > 26$
- B $x > 16$
- C $x < 26$
- D $x < 16$

15. Which answer is equal to $6 > 4$ multiplied by -7 ?

- A $-42 < -28$
- B $42 < 48$
- C $-42 < 28$
- D $42 > -28$

16. If $7n - 2 < 33$, what is n ?

- A $n > 40$
- B $n < 35$
- C $n > 2$
- D $n < 5$

17. Which inequality matches the figure below?



- A $x \leq -1$
- B $x > -1$
- C $x < -1$
- D $x \geq -1$

18. A package of 6 dinner rolls is no more than \$3.60. Which inequality shows how much one dinner roll would cost?

- A $r \leq \$0.60$
- B $r \geq \$0.60$
- C $r > \$0.60$
- D $r < \$0.60$

19. Which situation matches this graph?



- A The longest cruise is more than 8 days long.
- B An 8 day cruise costs more than a 3 day cruise.
- C The cruise lasted for 8 days more than it was supposed to.
- D The length of a cruise will be between 3 and 8 days long.

20. It snowed more than 45 inches last week. On one day, 16 inches of snow fell. On the other days, about the same amount of snow fell. Which inequality shows how much snow fell on the other days?

- A $45s - 16 > 7$
- B $45 - 16 \geq s$
- C $16 + 6s > 45$
- D $7 - 6s \leq 16$

Unit Posttest

Circle the letter of the correct answer.

1. Beth scored 8 more points than her sister in the basketball game. Which operation is shown in this situation?

A Multiplication
B Division
C Subtraction
D Addition

2. Which algebraic expression matches this situation?

Greg spent \$125 from his savings for a new skateboard. How much is left in his savings account?

- A $s + \$125$
B $125 \times s$
C $s - \$125$
D $125 \div s$
3. What is the value of $m^2 + 5 - 9 \div 3$ when $m = 4$?
- A 16
B 18
C 2
D 4

4. If $n - 7 = 11$, then $n =$

A 18
B 77
C 4
D 1

5. If $8n = 48$, then $n =$

A 40
B 56
C 6
D 8

6. The cost of a plane ticket was reduced by \$25. The new price was \$175. Which equation can be used to find the original price of the ticket?

A $x + \$25 = \175
B $x \div \$25 = \175
C $x \times \$25 = \175
D $x - \$25 = \175

Name _____ Date _____

Circle the letter of the correct answer.

7. Which operations are needed to solve the equation $4n - 6 = 10$?
- A Add 6 and divide by 4.
 B Subtract 10 and divide by 6.
 C Add 4 and divide by 10.
 D Subtract 4 and divide by 6.
8. If $18 - \frac{s}{2} = 13$, what is the value of s ?
- A 2
 B 10
 C 5
 D -10
9. Which operation is needed to isolate the quantity in parentheses in this equation?
- $(b + 6) \div 2 = 8$
- A Divide by 8.
 B Subtract 6
 C Multiply by 2.
 D Add 6.
10. If $6(3 + h) = 48$, then what is the value of h ?
- A 5
 B 11
 C 39
 D 14
11. Edo spent \$3.58 for a sandwich and \$4.19 for some snacks for his family. How much change did he get from a \$10 bill?
- A \$2.23
 B \$3.23
 C \$3.21
 D \$2.75
12. A footbridge is 50 meters long and 6 meters wide. Half of the area is wood and half is steel. How much of the area of the footbridge is wood?
- A 28 square meters
 B 30 square meters
 C 300 square meters
 D 150 square meters
13. Monica ran 3 miles at an average pace of 9 minutes per mile. She then swam for 25 minutes. How long did her workout take?
- A 37 minutes
 B 47 minutes
 C 52 minutes
 D 42 minutes

Circle the letter of the correct answer.

- 14.** If $x - 7 < 21$, what is x ?

A $x < 28$
 B $x > 14$
 C $x > 28$
 D $x < 14$

- 15.** Which answer is equal to $8 < 12$ multiplied by -4 ?

A $-32 < 48$
 B $32 > -48$
 C $32 < 48$
 D $-32 > -48$

- 16.** If $-5n + 8 > 53$, what is n ?

A $n > -9$
 B $n < -9$
 C $n < 60$
 D $n > 13$

- 17.** Which inequality matches the figure below?



A $x \leq 5$ C $x < 5$
 B $x > 5$ D $x \geq 5$

- 18.** A canvas bag of 12 football helmets weighs 36 pounds or more. Which inequality shows how much one helmet would weigh?

A $h > 3$ pounds C $h < 3$ pounds
 B $h \leq 3$ pounds D $h \geq 3$ pounds

- 19.** Which situation matches this graph?



A The pond has 3 ducks on most days.
 B There are 3 to 12 ducks on the pond.
 C There are always at least 3 ducks on the pond.
 D The pond has 12 more than 3 ducks today.

- 20.** Jamal has \$25 to spend for lunches at school this week. He plans to spend \$7 for the International Banquet on Wednesday. About how much will he have to spend each day for the rest of the week?

A $25 - 7 \geq d$
 B $7 + 4d \leq 25$
 C $25 + 4d \geq 7$
 D $d + 7 \leq 25$

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