Name: _____ Class: _____ Date: _____ ID: A

Math 6 Unit 4 Pre-Test

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Your class needs a total of 79 sandwiches for the parent luncheon. If 16 sandwiches have already been made, find the number n that is still needed.
a. 62 sandwiches
b. 63 sandwiches
c. 73 sandwiches
d. 95 sandwiches

____ 2. The recipe you are using indicates that a mixture should be heated to a temperature of 156°F. The mixture is currently at 99°F. How many more degrees d does the mixture need to be heated?
a. 57°F
b. 67°F
c. 56°F
d. 255°F

____ 3. Solve the equation $q - 11 = 64$. Check your answer.
a. $q = 63$
b. $q = 75$
c. $q = 54$
d. $q = 53$

____ 4. Write "12 is 5 less than z" as an algebraic equation. Then find the solution.
a. $12 = 5 - z$; $z = -7$
b. $12 = z - 5$; $z = 7$
c. $12 = 5 - z$; $z = -17$
d. $12 = z - 5$; $z = 17$

____ 5. Solve the equation $2s = 32$. Check your answer.
a. $s = 16$
b. $s = 17$
c. $s = 34$
d. $s = 30$

____ 6. The school cafeteria is shaped like a rectangle with an area of 480 square feet. The length of the cafeteria is 30 feet. What is its width?
a. 17 feet
b. 510 feet
c. 450 feet
d. 16 feet

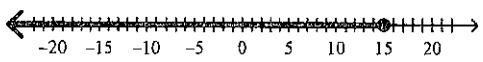
____ 7. A display has a total of 1610 lights. Each light strand has 35 lights. How many strands of lights are there?
a. 47 strands of lights
b. 1575 strands of lights
c. 1645 strands of lights
d. 46 strands of lights

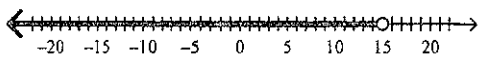
____ 8. Solve the equation. Check your answer.

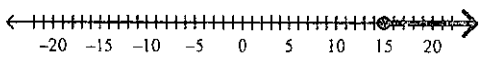
$\frac{s}{6} = 18$

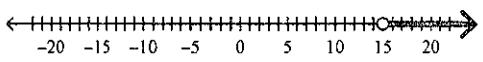
a. $s = 108$
b. $s = 3$
c. $s = 12$
d. $s = 24$

____ 9. Graph the solutions to $y > 15$ on a number line.

a. 

c. 

b. 

d. 

Solve the equation.

____ 10. $x + 2.8 = 8.3$

a. 11.1 b. 5.5 c. 10.1 d. 6.5

____ 11. $6k = 114$

a. 120 b. 108 c. 19 d. 7

Identify an equation that models the situation and find its solution.

____ 12. A tomato plant was 6 inches tall when it was planted in June. When the first tomatoes were ripe, the plant was 43 inches tall. How many inches did the plant grow?

a. $x - 6 = 43$
$x = 49$ in.

b. $x - 6 = 43$
$x = 48$ in.

c. $6 + x = 43$
$x = 38$ in.

d. $6 + x = 43$
$x = 37$ in.

____ 13. Karen wrote a check for $93. She subtracted that amount from her checking account and found that the balance was $263 after writing the check. What was her balance before writing the check?

a. $n + 93 = 263$;
$n = \$220$

b. $n + 93 = 263$;
$n = \$170$

c. $n - 93 = 263$;
$n = \$406$

d. $n - 93 = 263$;
$n = \$356$

____ 14. It's going to be Lindsay's birthday soon, and her friends Mary, Jacqui, Tadeusz, Opal, and Tony have contributed equal amounts of money to buy her a present. They have $15.00 to spend between them. Determine how much each contributed.

a. $5z = 15.00$;
$z = \$3.00$

b. $5 + z = 15.00$;
$z = \$10.00$

c. $5z = 15.00$;
$z = \$4.00$

d. $5 + z = 15.00$;
$z = \$9.00$

Write an inequality for the situation.

____ 15. Julia scored at least 20 points.

a. $k \geq 20$ b. $k < 20$ c. $k > 20$ d. $k \leq 20$

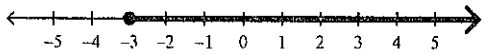
____ 16. No more than 5 books are in your backpack.

a. $x > 5$ b. $x \leq 5$ c. $x \geq 5$ d. $x < 5$

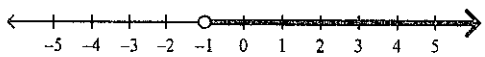
____ 17. A number m is less than or equal to negative two.

a. $m \leq 2$ b. $m \geq -2$ c. $m \leq -2$ d. $m > -2$

Which inequality does the graph represent?

____ 18. 

a. $x \geq -3$ b. $x > -2$ c. $x < -3$ d. $x \geq -2$

____ 19. 

a. $x > -1$ b. $x \geq -1$ c. $x < -1$ d. $x \leq -1$

____ 20. Which inequality is NOT true?

a. $-5 < 5$ b. $-1 > 1$ c. $7 \leq 7$ d. $-7 < -2$

____ 21. Write an inequality for the sentence: the sum of a number and 7 is at least 5.

a. $n + 7 \geq 5$ b. $n + 5 \geq -2$ c. $n + 7 \leq 5$ d. $n + 5 \leq -2$

Short Answer

22. Determine whether the given values of the variable is a solution. Show your work.
$m + 4 = 19$; $m = 23$, 15, or 16

23. Solve $58 = q - 14$. Check your answer. Show your work.

24. Solve the equation $\frac{y}{7} = 9$. Check your answer. Show your work.

Write an inequality to represent the situation. Then graph the inequality.

25. Tony earned more than $59.

26. Tina can type at least 75 words per minute.

27. The temperature stayed below 42°.

28. Graph the solution of the inequality $x > 4$.

29. List 3 possible solutions for the following inequality. $x > 4$.

30. Graph the solutions of the inequality $x \geq .2$

31. In the equation $8x = 64$ is $x = 8$ a possible solution to the equation. Yes or no? Explain your answer.

Other

32. A student says that the solution of $375 = x - 28$ is 347. Explain the student's error and find the correct answer.