GRADE 6 HOLIDAY PACKET ANSWER

Name: _____ Class: _____ Date: _____

GRADE 6 MATHEMATICS
HOLIDAY PACKET
THE NUMBER SYSTEM
EQUATIONS & EXPRESSIONS

Directions:

- Read and answer the questions carefully
- Record your answers to this cover page
- Show All Your Work to receive full credit

Questions	Answers
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
Score	**%**

Grade 6 Mathematics Reference Sheet

CONVERSIONS

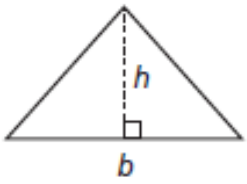
1 yard = 3 feet
1 mile = 5,280 feet

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 liter = 1,000 milliliters

1 pound = 16 ounces
1 ton = 2,000 pounds
1 kilogram = 1,000 grams

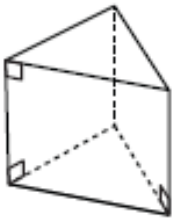
FORMULAS AND FIGURES

Triangle

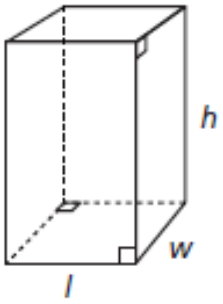


$A = \frac{1}{2}bh$

Right Triangular Prism

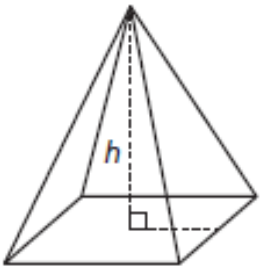


Right Rectangular Prism

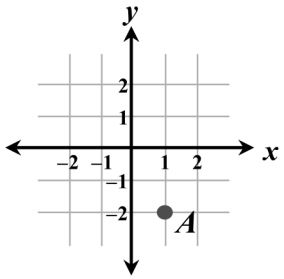


$V = lwh$
$V = Bh$

Right Rectangular Pyramid



1. The coordinates of the point A in the coordinate plane below are:



A. $(-1, -2)$ B. $(1, -2)$ C. $(-1, 2)$ D. $(1, 2)$

2. $6\frac{2}{7} \div 2\frac{3}{4} =$ ____

A. $2\frac{2}{7}$ B. $17\frac{2}{7}$ C. $2\frac{6}{11}$ D. $\frac{7}{16}$

3. You have $2\frac{2}{3}$ cups of dried fruit to divide evenly among 3 children. How many cups of fruit will each child receive?

A. $\frac{7}{9}$ B. $\frac{9}{7}$ C. $\frac{8}{9}$ D. $\frac{9}{8}$

4. Hisaki is making sugar cookies for a school bake sale. He has $3\frac{1}{2}$ cups of sugar. The recipe calls for $\frac{3}{4}$ cup of sugar for one batch of cookies. Which equation can be used to find b, the total number of batches of sugar cookies Hisaki can make?

A. $3\frac{1}{2} \times \frac{3}{4} = b$ B. $3\frac{1}{2} \div \frac{3}{4} = b$ C. $3\frac{1}{2} + b = \frac{3}{4}$ D. $3\frac{1}{2} - b = \frac{3}{4}$

5. The serving size for a toddler's daily vitamin C is $\frac{3}{4}$ cup of orange juice. If there are $2\frac{1}{4}$ cups of orange juice, how many servings of vitamin C are there for a toddler?

A. $\frac{16}{27}$ B. $\frac{12}{36}$ C. $1\frac{11}{16}$ D. 3

6. Marcus spent \$3.25 to wash his car. If one quarter operates the car wash for 60 seconds, how long did it take him to wash his car?

A. 10 minutes B. 13 minutes

C. 16 minutes D. 32.5 minutes

7. Manny has \$79.69 in his savings account. He takes out \$34.37. How much money does he have left in the account?

A. \$45.33 B. \$45.32 C. \$112.04 D. \$114.06

8. A local reader's club has a set of 12 hardback books, a set of 18 paperbacks, and a set of 36 magazines. Each set can be divided equally among the club members. What is the greatest possible number of club members?

A. 3 members B. 6 members C. 4 members D. 8 members

9. There are 190 guests at a wedding. What is the least number of circular tables needed to seat all the guests if each table seats exactly 8 people?

A. 22 B. 23 C. 24 D. 25

10. One morning, the temperature was 5° below zero. By noon, the temperature rose 20° Fahrenheit (F) and then dropped 8°F by evening. What was the evening temperature?

A. 17° below zero B. 15° below zero

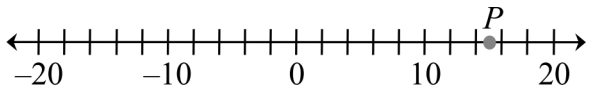
C. 12° above zero D. 7° above zero

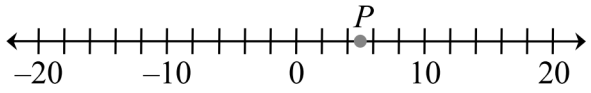
11. The coordinates of point V are $(7, 4)$. Point W is a reflection of point V across the x-axis.

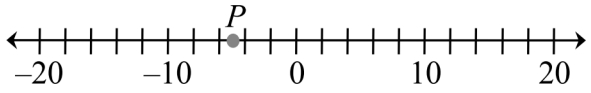
In which quadrant will point W be located?

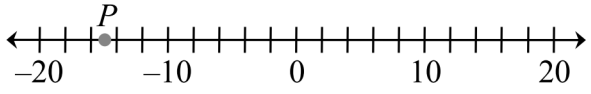
A. I B. II C. III D. IV

12. Which number line shows Point P located closest to -15?

A. 

B. 

C. 

D. 

13. Between noon and 10:00 p.m., Tyrone recorded -18°F as the change in temperature. Which best describes the change in temperature?

A. The temperature decreased by 18°F by 10:00 p.m.

B. The temperature increased 18°F by 10:00 p.m.

C. The temperature was -18°F at 10:00 p.m.

D. The temperature was 18°F at 10:00 p.m.

14. The Tasty Treats Cake Factory bakes cakes to sell for a grocery chain. Each cake is weighed to see how close it is to the factory's target weight of 30 ounces. The scale shows how close the cake's weight is to the target. The scale will display:

- A positive number if the cake's weight is over 30 ounces.
- A negative number if the weight is less than 30 ounces.
- Zero if the weight is exactly 30 ounces.

On Wednesday, the factory records the weights of 5 cakes. The reading with the largest absolute value belongs to:

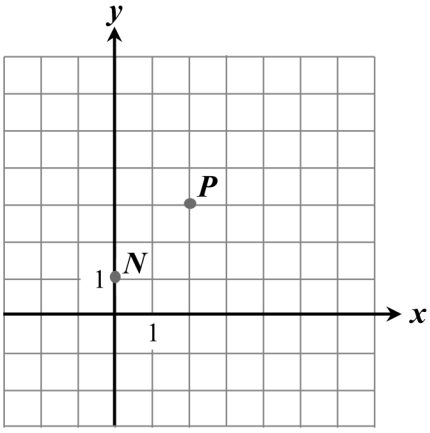
A. The cake that weighs the least.

B. The cake that is closest to the target weight.

C. The cake that weighs the most.

D. The cake that is furthest from the target weight.

15. For the figure below, which of the following points would be on the line that passes through points N and P?



A. $(-2, 0)$ B. $(1, 1)$ C. $(4, 5)$ D. $(5, 4)$

16. In a coordinate plane, the points $(2, 4)$ and $(3, -1)$ are on a line. Which of the following *must* be true?

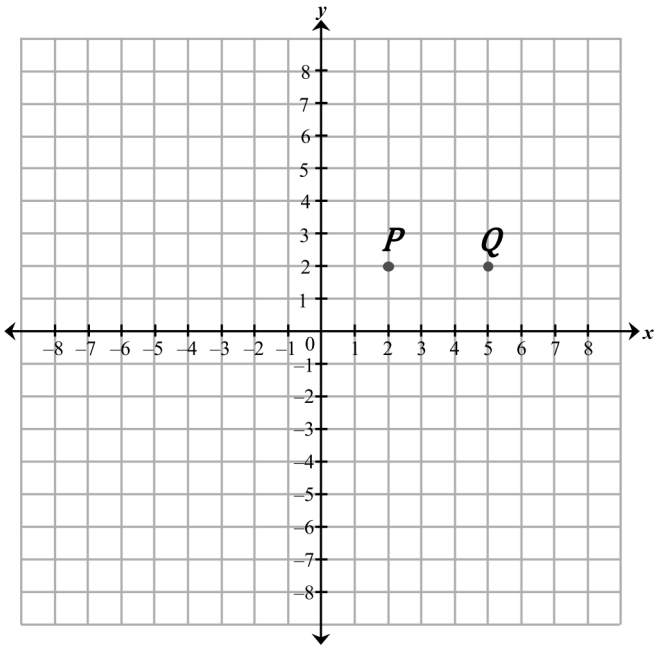
A. The line crosses the x-axis.

B. The line passes through $(0, 0)$.

C. The line stays above the x-axis at all times.

D. The line is parallel to the y-axis.

17. Look at the coordinate grid below.



Points R and S will be added to the grid to form rectangle $PQRS$ with an area of 20 square units. Which ordered pairs could be the coordinates of R and S?

A. $(5, 1)$ and $(1, -1)$

B. $(5, -2)$ and $(1, -2)$

C. $(5, -3)$ and $(1, -3)$

D. $(5, -4)$ and $(1, -4)$

18. Simplify the expression below.

$3^3 - 2^2$

A. 1 B. 5 C. 23 D. 25

19. Mike has x baseball cards. Tyrone has 3 times as many baseball cards as Mike. Frank has 20 baseball cards.

Which expression represents how many cards they have in all?

A. $x + 3x + 20$ B. $20 + 3x - x$ C. $x + 3 + 20$ D. $20 - 3x + x$

20. Rita is moving a pile of 120 rocks by hand to build a rock wall. If h represents the number of rocks that she can carry in one load, which expression represents the total number of loads needed to move the entire pile of rocks?

A. $120 + h$ B. $120h$ C. $120 - h$ D. $\frac{120}{h}$

21. Which expression is equivalent to $3x - 3y$?

A. $3xy$ B. $3(x - y)$ C. $3x - y$ D. $x - 3y$

22. Which is equal to $5(2a + 9)$?

A. $10a + 45$ B. $7a + 14$ C. $7a + 45$ D. $10a + 9$

23. Which is equal to $3x + 5 + x + 10 + 2y$?

A. $6x + 15$ B. $3x + 2y + 15$ C. $4x + 2y + 15$ D. $9x + 12y$

24. If $k = 6$, what is the value of the missing number in $7k - \square = 2$?

A. 30 B. 40 C. 54 D. 65

25. What value of y makes the equation $3y + 9 = 36$?

A. 9 B. 15 C. 30 D. 81

26. What is "two more than the quotient of six and a number, n," written as an algebraic expression?

A. $6n + 2$ B. $6n - 2$ C. $\frac{6}{n} + 2$ D. $\frac{6}{n} - 2$

27. Ellen had some change in her pocket. After her friend gave her \$0.45, Ellen had \$1.35 altogether. Which equation can she use to find the original amount of money, m, she had in her pocket?

A. $m + 0.45 = 1.35$ B. $1.35 = m - 0.45$

C. $m = 1.35 \times 0.45$ D. $m + 1.35 = 0.45$

28. Jan has 18 cards. Ray gives her v cards. Jan now has less than 30 cards.

Which best describes Jan's cards?

A. $v - 18 > 30$ B. $v + 18 < 30$ C. $v - 18 < 30$ D. $v + 18 > 30$

29. The table below shows values of x and y.

x	y
−8	−16
−2	−10
4	−4
10	2

Which equation describes the relationship between the values of x and y?

A. $y = 2x$ B. $y = 5x$ C. $y = x + 8$ D. $y = x - 8$

30. Which equation correctly describes the rule between x and y?

x	y
4	9
5	11
6	13
7	15

A. $y = x + 6 - 1$

B. $y = x \cdot x - 1$

C. $y = x + x - 1$

D. $y = x \cdot 2 + 1$