



MATHEMATICS  
SUMMER HOME LEARNING  
**GRADE 6**

*This summer home learning will be due the first week of school and it will be graded. These are the concepts you are expected to know coming into the 7th grade. Make sure that you show all your work for each question. You should complete the entire packet without the use of a calculator. No credit will be given to any question(s) you answer without showing work. Please use a pencil only and show your work. Use additional paper if necessary.*

**NO WORK = NO CREDIT**

NAME: \_\_\_\_\_

ID: \_\_\_\_\_

**Mathematics Summer Learning (show work on separate paper)****Select the best answer.**

1. Average yearly heat and electric costs are listed in the table. About how much more is the average cost in Brazil than in the U.S.?

Country	Average Cost
Argentina	\$2,137
Brazil	\$2,702
India	\$2,360
U.S.	\$2,376

- A \$200                      C \$400  
B \$300                      D \$600
2. What is the value of  $5^4$ ?  
F 20                          H 625  
G 45                          I 715
3. What is the value of  $4 \cdot 5 - 2 \cdot 6 + 4$ ?  
A 12                          C 36  
B 18                          D 72
4. Which expression shows how the Distributive Property can be used to multiply  $8 \times 29$ ?  
F  $8(20) + 8(9)$               H  $29(8)$   
G  $8 + 20 \cdot 8 + 9$               I  $8(20) + 9$
5. Which algebraic expression means "the sum of 3 times a number and 5"?  
A  $3x + 5$                       C  $5 + x$   
B  $5x + 3$                       D  $2x + 5$
6. Which is a solution to  $x - 9 = 16$ ?  
F  $x = 7$                       H  $x = 12$   
G  $x = 10$                       I  $x = 25$

7. Mitch works 4 afternoons per week at a local drugstore. He earns \$32 per day. How many weeks will Mitch have to work in order to earn \$896?

A 5 weeks                      C 9 weeks  
B 7 weeks                      D 28 weeks

8. What is the solution to the

equation  $\frac{x}{3} = 18$ ?

F  $x = 5$                       H  $x = 9$   
G  $x = 6$                       I  $x = 54$

9. Clarissa works at the deli on Saturdays. Her mom came in and ordered 3 different salads. She ordered 5.2 pounds of potato salad, 5.25 pounds of coleslaw, and 5.3 pounds of pasta salad. Which shows the decimals in order from least to greatest?

A 5.2, 5.25, 5.3  
B 5.3, 5.25, 5.2  
C 5.25, 5.2, 5.3  
D 5.25, 5.3, 5.2

10. What is the value of  $7.36 - s$  when  $s = 2.6$ ?

F  $s = 4.76$                       H  $s = 7.1$   
G  $s = 5.76$                       I  $s = 7.346$

**Mathematics Summer Learning (show work on separate paper)**

11. A used car loan of \$2,262.24 is to be paid off in 18 equal monthly payments. How much is each payment?
- A \$100.24                      C \$120.24  
B \$118.52                      D \$125.68
12. What is the solution for the equation  $\frac{y}{8.2} = 3.5$ ?
- F  $y = -4.7$                       H  $y = 11.7$   
G  $y = 2.34$                       I  $y = 28.7$
13. What is the GCF of 45, 90, and 150?
- A 3                                  C 6  
B 5                                  D 15
14. Four friends cut their hair for a charity. Danielle cut off  $8\frac{1}{2}$  inches. Marcia cut off  $8\frac{5}{8}$  inches. Judi cut off  $8\frac{3}{4}$  inches. Luisa cut off  $8\frac{5}{6}$  inches. Who cut off the most hair?
- F Danielle                      H Judi  
G Marcia                      I Luisa
15. What is the value of  $\frac{7}{8} - x$  for  $x = \frac{3}{8}$  written in simplest form?
- A  $\frac{1}{4}$                                   C  $\frac{4}{8}$   
B  $\frac{1}{2}$                                   D  $\frac{10}{8}$
16. Delroy has just started jogging. He jogs for  $\frac{5}{8}$  mile, walks for a while, and then jogs an additional  $\frac{7}{16}$  mile. How far does he jog?
- F  $\frac{1}{2}$  mile                      H  $1\frac{1}{16}$  miles  
G  $\frac{3}{4}$  mile                      I  $1\frac{1}{2}$  miles
17. At summer camp the cook bought 150 pounds of potatoes. The campers made campfire pocket stew and used  $82\frac{7}{8}$  pounds of potatoes. How many pounds were left?
- A  $60\frac{5}{8}$  pounds                      C  $68\frac{1}{8}$  pounds  
B  $67\frac{1}{8}$  pounds                      D  $72\frac{7}{8}$  pounds
18. Roberto's tuition was \$4800. He was able to obtain a loan for  $\frac{2}{3}$  of the tuition. How much was the loan?
- F \$1,600                      H \$3,200  
G \$2,400                      I \$9,600
19. A t-shirt requires  $\frac{3}{4}$  yard of material. How many t-shirts can be made from 18 yards of material?
- A 6                                  C 24  
B 13                                  D 36
20. What is the median of this data set?
- 5 4 2 8 6 1 3 7 12
- F 5                                  H 6.4  
G 6                                  I 7

**Mathematics Summer Learning (show work on separate paper)**

21. The members of a book club are 33, 33, 38, 35, 57, 37, and 40 years old. To the nearest tenth, what is the mean of this data set with and without the outlier?

A 36, 38.8                      C 39, 36  
B 39, 30.9                      D 45.5, 30.9

22. What is the range of the following data set?

Stem	Leaves
0	
1	0 2 7 9
2	2 6
3	5 5 9

F 0                                      H 29

G 10                                    I 39

23. A salt dough recipe calls for 4 cups of salt and 12 cups of flour. If the recipe is reduced, how many cups of flour should be used with 1 cup of salt?

A 1 cup                              C 3 cups  
B 2 cups                              D 4 cups

24. The distance between two towns on a map measures 4 inches. The actual distance is 180 miles. What is the scale of the map?

F 1 inch:15 miles  
G 1 inch:25 miles  
H 1 inch:35 miles  
I 1 inch:45 miles

25. Which set of numbers is in order from greatest to least?

A  $\frac{3}{8}$ ; 30%; 0.4

B 15%;  $\frac{1}{6}$ ; 0.14

C 60%; 0.58;  $\frac{4}{7}$

D 0.45;  $\frac{3}{5}$ ; 40%

26. Regina received a score of 39 out of 52 on a quiz. What percent did she earn?

F 39%                                      H 82%

G 75%                                      I 133%

27. A watch cost \$75.99. If the sales tax rate is 6.25%, what is the amount of sales tax?

A \$0.48                                      C \$4.75  
B \$2.19                                      D \$474.94

28. Fallon wants to sew a new trim around the edge of a blanket. The blanket is 72 inches wide and 76 inches long. How many inches of edging will Fallon need?

F 148 inches                      H 304 inches  
G 296 inches                      I 5,472 inches

29. A circle has a diameter of 16 inches. What is the circumference of the circle rounded to the nearest hundredth? Use 3.14 for  $\pi$ .

A 50.24 inches  
B 100.48 inches  
C 200.96 inches  
D 803.84 inches

**Mathematics Summer Learning (show work on separate paper)**

30. The Truman's rectangular vegetable garden has a length of 12 feet and a width of 4 feet. What is the area of their vegetable garden?

F 16 square feet  
G 32 square feet  
H 36 square feet  
I 48 square feet

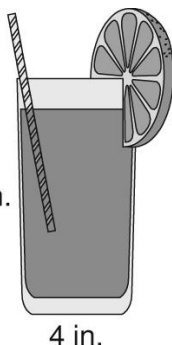
31. A circular flowerbed has a diameter of 27 feet. What is the area of the flowerbed? Use 3.14 for  $\pi$  and round to the nearest hundredth.

A 84.78 square feet  
B 452.16 square feet  
C 572.27 square feet  
D 2,289.06 square feet

32. What is the volume of the glass?

Use 3.14 for  $\pi$ .

F 32 cubic inches  
G 50.24 cubic inches  
H 100.48 cubic inches  
I 401.92 cubic inches



33. Which is an equation for the function that gives the values in the table?

<b>x</b>	2	3	4
<b>y</b>	10	13	16

A  $y = 2x - 1$   
B  $y = 3x + 4$   
C  $y = 6x - 2$   
D  $y = 5x + 3$

34. Which ordered pair is a solution of the equation  $y = 3x + 1$ ?

F (1, 2)                      H (4, 13)  
G (3, 9)                      I (5, 15)

35. What is the solution to the equation  $3x - 6 = 9$ ?

A  $x = 1$                       C  $x = 9$   
B  $x = 5$                       D  $x = 45$

36. Which value is part of the solution to the inequality  $6t \geq 36$ ?

F  $t = 0$                       H  $t = 4$   
G  $t = 2$                       I  $t = 6$

37. What is  $|-13|$ ?

A -13                          C 1  
B 0                              D 13

38. Which set of integers is written in order from greatest to least?

F -3, -2, 2, 4  
G -4, -8, -12, -14  
H -2, -4, -1, -7  
I 4, -3, -2, -8

39. What is the value of  $-n - (-9)$  for  $n = 9$ ?

A -18                          C 9  
B 0                              D 18

40. What is the solution of the equation  $z \div (-4) = 16$ ?

F  $z = -64$                       H  $z = 4$   
G  $z = -4$                       I  $z = 6$