NAME _____ DATE _____ PERIOD _____

St. Michael the Archangel
6th Grade Math Summer Assignment

Circle or write the best answer for each question. <u>You MUST show your work</u> to receive credit for the assignment.

1. Which rule best describes the relationship shown in the function table below?

Input	Output
1	3
2	6
3	9
4	12
5	15

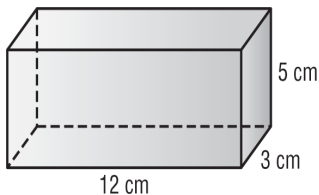**A.** subtract 2   **B.** add 2   **C.** divide by 3   **D.** multiply by 3

2. Marcus needs to earn a grade *higher than* 88 on his final quiz in order to have an A average. Which inequality best represents this situation?

   F. $g \geq 88$ **G.** $g > 88$ **H.** $g < 88$ **I.** $g \leq 88$

3. What is the least common multiple of 8 and 14?

   A. 56   **B.** 28   **C.** 4   **D.** 2

4. What is the volume of the rectangular prism shown below?

   F. 20 cm^3 **G.** 75 cm^3 **H.** 180 cm^3 **I.** 222 cm^3

5. The list below shows the number of books read by students in Abram's class over the summer. What is the mode of the data?

             3, 6, 12, 4, 3, 5, 4, 8, 4, 10, 4, 8, 7, 5, 7

   A. 4 books   **B.** 5 books   **C.** 7 books   **D.** 9 books

6. While on a jet ski, Maddy used $2\frac{3}{4}$ gallons of gasoline on Tuesday and $2\frac{1}{5}$ gallons of gasoline on Wednesday. How many gallons of gas did she use altogether?

Answer:_____

7. The ratio table shows the number of miles Karen can drive for 1, 2, 3, and 4 gallons of gasoline. Based on the table, how far would she be able to drive on 8 gallons of gasoline?

| Gallons	1	2	3	4
Distance (mi)	30	60	90	120

A. 30 mi   **B.** 150 mi   **C.** 210 mi   **D.** 240 mi

8. A muffin recipe calls for a ratio of 5 cups of flour to 2 cups of sugar. For each cup of sugar that is used, how many cups of flour are needed?

F. $\frac{5}{2}$ cups of flour   **G.** $\frac{5}{7}$ cups of flour   **H.** $\frac{2}{5}$ cup of flour   **I.** $\frac{2}{7}$ cup of flour

9. To find the perimeter of a triangle, find the sum of the measures of the three sides. Find the perimeter of the triangle shown.

Answer:_____
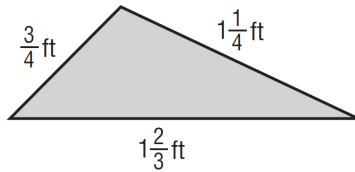
10. The table shows the number of points Anna scored this season. Find the mean (average) number of points Anna scored.

Points Scored			
12	7	9	10
16	6	8	15
12	11	12	14

**A.** 9 points   **B.** 10 points   **C.** 11 points   **D.** 12 points

11. FUNDRAISING Dominick made $\frac{1}{4}$ of the total sales and Billy made $\frac{7}{40}$ of the total sales. What is the difference between Dominick's and Billy's fraction of sales?

Answer:_____

12. Albert purchased 2.4 pounds of mixed nuts for $4.79 per pound. How much did he spend in all, to the nearest cent?

A. $12.43   **B.** $11.50   **C.** $6.71   **D.** $1.99

13. Which of the following coordinate pairs corresponds to point A?
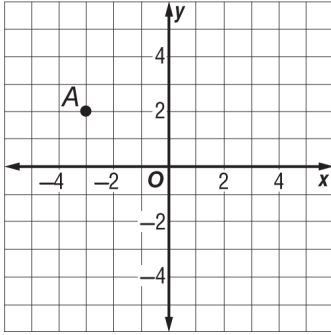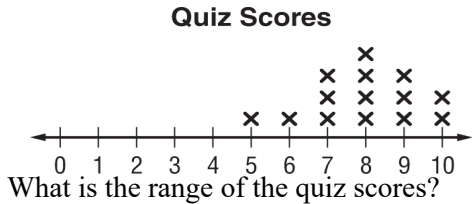

F. (2, –3) **G.** (3, –2) **H.** (–2, 3) **I.** (–3, 2)

14. Which of the following symbols, when placed in the blank, makes the number sentence true?

$\frac{20}{75}$ _____ $0.\overline{26}$

A. + **B.** = **C.** < **D.** >

15. The line plot shows the quiz scores of several students.

Quiz Scores

What is the range of the quiz scores?

A. 4 points **B.** 5 points **C.** 7 points **D.** 8 points

16. Julio is evaluating the expression below.

$$6 + 2(9 - 4) - 3 \times 5$$

Which operation should be performed first according to the order of operations? **Then Solve.**
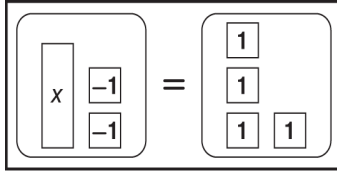
F. Add 6 and 2 **G.** Multiply 2 by 9 **H.** Subtract 4 from 9 **I.** Multiply 3 by 5

17. Which property is represented by the equation shown below?

$$6 \times 3 = 3 \times 6$$

A. Multiplicative Inverse Property **B.** Multiplicative Identity Property

C. Associative Property of Multiplication **D.** Commutative Property of Multiplication

18. The algebra mat below models the equation $x - 2 = 4$.

What is the solution to the equation?

F. 6   **G.** 2   **H.** –2   **I.** –8

19. What value of x results in a true number sentence in the equation shown?

$$2x = 16$$

A. 32   **B.** 14   **C.** 8   **D.** 4

20. The table below shows the type and number of vehicles in a parking lot
.

Types of Cars	
Minivans	12
Sedan	28
SUV	9
Trucks	5

What is the ratio of sedans to minivans in simplest form?

A. 7 to 3   **B.** 3 to 7   **C.** 7 to 10   **D.** 10 to 3

21. What is the area of the triangle?
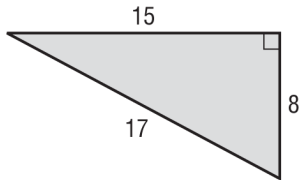

A. 120 square units   **B.** 75 square units   **C.** 60 square units   **D.** 40 square units

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

A. 16 : 10   **B.** 5 to 13   **C.** $\frac{25}{44}$ **D.** 15 out of 24

23. Kylie surveyed several classmates about the number of states they have visited. The results are shown in the histogram. How many of Kylie's classmates have visited more than 15 states?

How Many States Have You Visited?
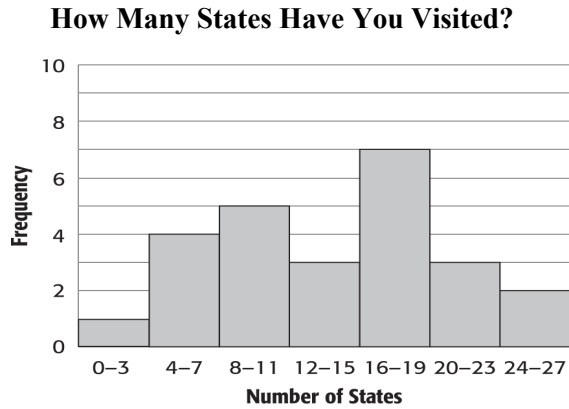
F. 3 students   **G.** 8 students   **H.** 12 students   **I.** 15 students

24. Which of the following represents the decimal 0.32 written as a fraction in simplest form?

F. $\frac{32}{100}$ **G.** $\frac{16}{50}$ **H.** $\frac{17}{50}$ **I.** $\frac{8}{25}$

25. SHORT ANSWER Jeremy can purchase a 1.2-pound package of ground beef for $4.55 or a 1.6-pound package for $6.30. Which is the better buy? Explain your reasoning.

Answer:_____

26. Mr. Addison is building a sandbox shaped like a rectangular prism. The sandbox is 8 feet long, 6 feet wide, and 1.5 feet deep. How many cubic feet of sand will the sandbox hold?

F. 15.5 cubic feet   **G.** 72 cubic feet   **H.** 105 cubic feet   **I.** 138 cubic feet
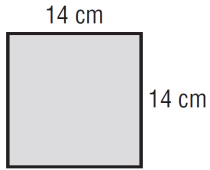
27. Which of the following expressions correctly uses exponents to show the prime factorization of 168?

F. $2^4 \times 3 \times 7$ **G.** $2^3 \times 3^2 \times 7$ **H.** $2^4 \times 3^2 \times 7$ **I.** $2^3 \times 3 \times 7$

28. A pancake recipe calls for $\frac{1}{3}$ cup of mix for 4 pancakes. If Beth needs to make 60 pancakes, how many cups of pancake mix will she need?

A. 5 cups   **B.** $4\frac{2}{3}$ cups   **C.** $3\frac{1}{3}$ cups   **D.** $\frac{1}{5}$ cup

29. Find the area of the square shown below.

14 cm

14 cm

Answer: _____

30. Solve. At the concession stand, a slice of cheese pizza costs $1.75 and a slice of pepperoni costs $2.20. How much more does a slice of pepperoni cost than a slice of cheese?

Answer:_____

Add or subtract. Write in simplest form.

31. $\frac{8}{16} + \frac{2}{16}$

32. $\frac{7}{9} - \frac{1}{3}$

33. $3\frac{2}{7} + \frac{1}{4}$

34. $5\frac{1}{3} - 1\frac{3}{10}$

Find the GCF of each set of numbers.

35. 14 and 63

36. 15 and 70

What is the value of each expression in simplest form?

37. $\frac{1}{2} \div \frac{1}{3}$

A. $\frac{1}{6}$ **B.** $\frac{1}{2}$ **C.** 3   **D.** $1\frac{1}{2}$

38. $3 \div \frac{5}{6}$

F. $\frac{5}{18}$ **G.** $2\frac{1}{2}$ **H.** 3   **I.** $3\frac{3}{5}$

39. $2 \div 1\frac{2}{3}$

A. $\frac{5}{6}$ **B.** $1\frac{1}{5}$ **C.** $1\frac{1}{3}$ **D.** $3\frac{1}{3}$