Name _____ Period _____ Date _____

Grade 6 Unit 1 Model Curriculum Assessment

For multiple choice questions, circle the best answer.
For all other questions, respond in the space provided.

1. What is the value of $\frac{1}{2} \div \frac{3}{5}$?

   a. $\frac{6}{5}$

   b. $\frac{5}{6}$

   c. $\frac{4}{6}$

   d. $\frac{3}{4}$

2. What is the value of $\frac{5}{6} \div \frac{1}{2}$?

   a. $\frac{1}{3}$

   b. $\frac{5}{12}$

   c. $\frac{5}{3}$

   d. $\frac{5}{2}$

3. What is the value of $3\frac{1}{3} \div \frac{2}{3}$? Show your work.

4. Draw a model below to show why $\frac{1}{2} \div \frac{1}{8}$ is equal to 4.

5. Which of the following is equivalent to the expression $\frac{2}{5} \div 4$?

   a. $\frac{2}{5} \div \frac{1}{4}$

   b. $\frac{2}{5} \times \frac{1}{4}$

   c. $\frac{2}{5} \times 4$

   d. $\frac{5}{2} \times 4$

6. Amy claims that $\frac{1}{2} \div \frac{1}{4} = 2$. Which of the following is true about Amy's claim?

   a. It is correct, because $\frac{1}{2}$ of $\frac{1}{4}$ is 2.

   b. It is correct, because $\frac{1}{4}$ of 2 is $\frac{1}{2}$.

c. It is not correct, because $\frac{1}{4}$ does not divide 2 evenly.

d. It is not correct, because $\frac{1}{4}$ of $\frac{1}{2}$ is $\frac{1}{8}$.

7. The area of a rectangular dog pen is $8\frac{1}{2}$ square feet.

If the width is $3\frac{2}{5}$ feet, what is the length, in feet?

8. A wire $4\frac{1}{2}$ feet long is being cut into smaller pieces of wire, each $1\frac{1}{4}$ feet long. What is the maximum number of smaller pieces of wire that can be cut from the original piece of wire?

a. 2
b. 3
c. 4
d. 5

9. A container has $3\frac{3}{8}$ pounds of flour. Mr. Wright gives each member of his cooking class $\frac{3}{16}$ pound of flour, which empties the container. How many people are in Mr. Wright's class?

a. 3
b. 6
c. 9
d. 18

10. A farmer receives a shipment of $40\frac{1}{2}$ kilograms of animal food. The animal food comes in bags weighing $13\frac{1}{2}$ kilograms each.

Part A What is the value of $40\frac{1}{2} \div 13\frac{1}{2}$?

Part B What does your solution from Part A represent in the context of the problem?

11. Kaitlyn completed a bike race. The length of the race was $11\frac{1}{4}$ miles, and Kaitlyn averages $7\frac{1}{2}$ miles each hour. How long did it take Kaitlyn to finish the race? Show your work, and be sure to include the correct units in your answer.

12. Shawn bought fruit last week, consisting of 2.26 pounds of bananas, 1.5 pounds of grapes, and a watermelon that weighed 6.78 pounds. What is the total weight, in pounds, of the fruit that Shawn bought last week? Show your work.

13. What is the product of 45.2 and 15 ?

    a. 271
    b. 678
    c. 2,712
    d. 6,780

14. John received $50.00 from his aunt for his birthday. The total cost of a video game, including tax, is $28.56. How much of the $50.00 will remain after John purchases the video game?

    a. $21.44

b. $21.56
c. $31.44
d. $78.56

15. What is the quotient of 11.25 divided by 2.5 ?

a. 0.405
b. 0.450
c. 4.050
d. 4.500

16. If an elevation 20 meters below sea level is represented by the number -20, which of the following can best be represented by the number 0 ?

a. An elevation 20 meters above sea level.
b. An elevation at sea level.
c. An elevation 20 meters below sea level.
d. An elevation 40 meters below sea level.

17. Water has a freezing temperature of 0 degrees Celsius.

- Castor oil has a freezing temperature that is 18 degrees Celsius less than the freezing temperature of water.
- Palm oil has a freezing temperature that is 24 degrees Celsius more than the freezing temperature of water.
- Corn oil has a freezing temperature that is 20 degrees Celsius less than the freezing temperature of water.

Which of the following oils have freezing temperatures, in degrees Celsius, that are negative numbers?

a. Corn oil only
b. Castor oil and palm oil only
c. Castor oil and corn oil only
d. Castor oil, palm oil, and corn oil

18. There are four students on the chess team.

- The shortest student is 55 inches tall.
- The tallest student is 66 inches tall.
- The mean height of the four students is 61 inches.
- The mean absolute deviation of the heights of the four students is less than 4 inches.

What could be the heights, in inches, of the two other students? Explain how you found your answers or show your work.

19. The table below shows the bowling scores of 11 students from Baruch Middle School last Wednesday.

Bowling Scores

40	64	66	67	67	68	69	70	71	72	78

Part A What is the range of this data set?

Part B What is the interquartile range of this data set?

Part C Which measure, the range or the interquartile range, is a better measure of the spread of this data set? Why?

20. The table below shows the total park acres per 1,000 residents for 6 cities in 2010.

Total Park Acres per 1,000 Residents

0.8	1.0	2.7	2.8	3.1	13.3

Part A What is the mean of this data set?

Part B What is the median of this data set?

Part C Which measure, the mean or the median, is a better measure of the center of this data set? Why?