Enhanced End of Topic Assessment

Name _____   Date _____

Part A: Multiple-Choice Questions

1. Kamoira bought 8 pizzas for $131.36. Each pizza cost the same amount. What was the cost of each pizza in dollars and cents?

    a. $16.42

    b. $32.84

    c. $131.36

    d. $1050.88

2. Carlos hiked $8\frac{1}{2}$ miles in 2 hours. At this constant rate, how many miles can he hike in 1 hour?

    a. $3\frac{1}{4}$ mi

    b. $4\frac{1}{4}$ mi

    c. 1 mi

    d. $\frac{4}{13}$ mi

3. Amanda uses the recipe shown to make punch for a family party.

Amanda's Punch Recipe
$7\frac{3}{4}$ fluid ounces fruit juice
$2\frac{1}{4}$ fluid ounces lemonade

How much lemonade will she need to make a total of 180 fluid ounces of punch?

    a. 18 fl oz

    b. $40\frac{1}{2}$ fl oz

    c. $52\frac{8}{31}$ fl oz

    d. $139\frac{1}{2}$ fl oz

4. Kayla uses a rate table to keep track of how much she earns on her job based on how long she works.

Hours Worked	Amount Earned
1	?
$2\frac{1}{2}$	$19.00
$3\frac{1}{2}$	?
4	$30.40
$6\frac{1}{2}$	?
$7\frac{3}{4}$	$58.90

How much will Kayla earn if she works a $6\frac{1}{2}$-hour shift?

a. $44.65

b. $45.60

c. $49.40

d. $50.65

5. The distance between two lighthouses is 137 miles. There are approximately 8 kilometers in 5 miles. Which measurement is closest to the number of kilometers between these two lighthouses?

a. 1096 km

b. 685 km

c. 85.6 km

d. 219.2 km

Part B: Open-Response Questions

6. Kathy and Omar are planning a party to honor the teachers at their school. They each suggest a recipe for apple cider punch to serve at the party.

Kathy's Recipe	Omar's Recipe
$1\frac{3}{4}$ parts apple cider	$3\frac{1}{2}$ parts apple cider
$3\frac{1}{4}$ parts ginger ale	$2\frac{1}{2}$ parts ginger ale

For each recipe, write a unit rate to represent the parts of apple cider per part of ginger ale. Then, determine which recipe will have the stronger apple taste. Explain how you determined your answer.

7. On his last math test, Sebastian completed $15\frac{3}{4}$ problems in $78\frac{3}{4}$ minutes.

    a. Write unit rates for this situation as $\frac{\text{minutes}}{\text{problem}}$ and as $\frac{\text{problems}}{\text{minute}}$.

    b. If he worked at a constant rate, how long did it take Sebastian to complete 7 problems? Explain how you can use a unit rate to answer this question.

    c. If he worked at a constant rate, how many math problems did Sebastian complete in 55 minutes? Explain how you can use a unit rate to answer this question.

8. A tin of mints has a mass of $48\frac{3}{4}$ grams. There are 0.035 ounces in 1 gram. What is the mass of the tin in ounces? Round to the nearest hundredth.

9. Lila ran at a rate of 4 miles in 32 minutes. There are 1.61 kilometers in 1 mile. What is Lila's running rate in kilometers per hour?

10. The New Mexico Division of Fish and Wildlife keeps track of the silvery minnow population in the Rio Grande River. Of the total silvery minnow population, 54 silvery minnows were tagged and then released. A week later, they captured a total of 62 silvery minnows, which included 12 tagged silvery minnows. What is a good estimate of the total silvery minnow population in the Rio Grande River?

11. A person who weighs 100 kilograms on Earth would weigh $16\frac{1}{2}$ kilograms on the Moon. Determine how much a child who weighs $30\frac{1}{2}$ kilograms on Earth would weigh on the Moon. Round to the nearest hundredth, if necessary.

12. A newborn kitten weighs about $\frac{1}{4}$ pound. There are 0.45 kilograms in 1 pound. If a mother cat has a litter of 6 kittens, what is the approximate total weight of the litter of 6 kittens in kilograms?

Part C: Griddable Response Questions

Record your answers and fill in the bubbles. Be sure to use the correct place value.

13. A car uses 3.75 gallons of gasoline to travel 100.5 miles. Calculate the unit rate as a decimal.

14. A pool has drained 1087.5 gallons of water after 1.5 hours. At this rate, how many gallons of water would have drained from the pool after 10.5 hours?

15. $6\frac{1}{2}$ yards of ribbon cost $9.75. How much does it cost for 20 yards of ribbon?