Name _____ Period _____

Unit 3 Rate and Percent Week of 12/3/18

Gray

Learning Targets from 6th Grade Common Core State Standards:

Lesson 5 Comparing Speeds and Prices

- ☐ I understand that if two ratios have the same rate per 1, they are equivalent ratios.
- ☐ When measurements are expressed in different units, I can decide who is traveling faster or which item is the better deal by comparing "how much for 1" of the same unit.

Lesson 6 Interpreting Rates

- ☐ I can choose which unit rate to use based on how I plan to solve the problem.
- ☐ When I have a ratio, I can calculate its two unit rates and explain what each of them means in the situation.

Lesson 7 Equivalent Ratios have Equivalent Rates

- ☐ I can give an example of two equivalent ratios and show that they have the same unit rates.
- ☐ I can multiply or divide by the unit rate to calculate missing values in a table of equivalent ratios.

This Week's Vocabulary Words:

convert equivalent ratios unit unit rate unit price speed

Homework is due the following day.

Day	Class work—All in Spiral using iPad ☺	Homework	Complete	Correct
Monday	No School Trimester 1 Grading Day			
Tuesday	Lesson 5 Comparing Speeds and Prices	Pages 1 & 2: Lesson 5 Practice Problems—All	/4	/22
Wednesday	Lesson 6 Interpreting Rates	Pages 3 & 4: Lesson 6 Practice Problems—All	/4	/18
Thursday	Lesson 7 Converting Units	Pages 5 & 6: Lesson 7 Practice Problems: 1, 2, 3, 4, 5, 6 is the Challenge	/4	/20
Friday		None		
		Total	/12	
		Quality	/4	
		Total	/16	

Homework Quality—Remember, if you don't know how to complete a problem you should read it again and write down the information you have, draw a picture, or write a question you have, please do not leave blank or write "?" or idk. You can also come in and get help before school☺!

- ☐ Work is ***thorough*** with ***detailed*** explanations (2 pts)
- ☐ Homework is corrected (with additions needed) in a different color pen/pencil (2 pts)

NAME DATE PERIOD

Unit 3, Lesson 5: Comparing Speeds and Prices

1. Mai and Priya were on scooters. Mai traveled 15 meters in 6 seconds. Priya travels 22 meters in 10 seconds. Who was moving faster? Explain your reasoning.

2. Here are the prices for cans of juice that are the same brand and the same size at different stores. Which store offers the best deal? Explain your reasoning.

   Store X: 4 cans for $2.48 Store Y: 5 cans for $3.00 Store Z: 59 cents per can

3. Costs of homes can be very different in different parts of the United States.

   a. A 450-square-foot apartment in New York City costs $540,000. What is the price per square foot? Explain or show your reasoning.

   b. A 2,100-square-foot home in Cheyenne, Wyoming, costs $110 per square foot. How much does this home cost? Explain or show your reasoning.

4. There are 33.8 fluid ounces in a liter. There are 128 fluid ounces in a gallon. About how many liters are in a gallon?

   a. 2

NAME DATE PERIOD

b. 3

c. 4

d. 5

Is your estimate larger or smaller than the actual number of liters in a gallon? Explain how you know.

(from Unit 3, Lesson 4)

5. Diego is 165 cm tall. Andre is 1.7 m tall. Who is taller, Diego or Andre? Explain your reasoning.

(from Unit 3, Lesson 3)

6. Name an object that could be about the same length as each measurement.

a. 4 inches

b. 6 feet

c. 1 meter

d. 5 yards

e. 6 centimeters

f. 2 millimeters

g. 3 kilometers

(from Unit 3, Lesson 2)

NAME DATE PERIOD

Unit 3, Lesson 6: Interpreting Rates

1. A pink paint mixture uses 4 cups of white paint for every 3 cups of red paint.

   The table shows different quantities of red and white paint for the same shade of pink. Complete the table.

white paint (cups)	red paint (cups)
4	3
	1
1	
	4
5	

2. A farm lets you pick 3 pints of raspberries for $12.00.

   a. What is the cost per pint?

   b. How many pints do you get per dollar?

   c. At this rate, how many pints can you afford for $20.00?

   d. At this rate, how much will 8 pints of raspberries cost?

3. Han and Tyler are following a polenta recipe that uses 5 cups of water for every 2 cups of cornmeal.

   - Han says, "I am using 3 cups of water. I will need $1\frac{1}{5}$ cups of cornmeal."
   - Tyler says, "I am using 3 cups of cornmeal. I will need $7\frac{1}{2}$ cups of water."

NAME DATE PERIOD

Do you agree with either of them? Explain your reasoning.

4. A large art project requires enough paint to cover 1,750 square feet. Each gallon of paint can cover 350 square feet. Each square foot requires $\frac{1}{350}$ of a gallon of paint.

   Andre thinks he should use the rate $\frac{1}{350}$ gallons of paint per square foot to find how much paint they need. Do you agree with Andre? Explain or show your reasoning.

5. Andre types 208 words in 4 minutes. Noah types 342 words in 6 minutes. Who types faster? Explain your reasoning.

(from Unit 3, Lesson 5)

6. A corn vendor at a farmer's market was selling a bag of 8 ears of corn for $2.56. Another vendor was selling a bag of 12 for $4.32. Which bag is the better deal? Explain or show your reasoning.

(from Unit 3, Lesson 5)

7. A soccer field is 100 meters long. What could be its length in yards?

(a) 33.3 (b) 91 (c) 100 (d) 109

4

NAME DATE PERIOD

Unit 3, Lesson 7: Equivalent Ratios Have the Same Unit Rates

1. A car travels 55 miles per hour for 2 hours. Complete the table.

time (hours)	distance (miles)	miles per hour
1	55	55
$\frac{1}{2}$		
$1\frac{1}{2}$		
	110	

2. The table shows the amounts of onions and tomatoes in different-sized batches of a salsa recipe.

   Elena notices that if she takes the number in the tomatoes column and divides it by the corresponding number in the onions column, she always gets the same result.

   What is the meaning of the number that Elena has calculated?

onions (ounces)	tomatoes (ounces)
2	16
4	32
6	48

3. A restaurant is offering 2 specials: 10 burritos for $12, or 6 burritos for $7.50. Noah needs 60 burritos for his party. Should he buy 6 orders of the 10-burrito special or 10 orders of the 6-burrito special? Explain your reasoning.

4. Complete the table so that the cost per banana remains the same.

NAME DATE PERIOD

number of bananas	cost in dollars	unit price (dollars per banana)
4		0.50
6		0.50
7		0.50
10		0.50
	10.00	0.50
	16.50	0.50

5. Two planes travel at a constant speed. Plane A travels 2,800 miles in 5 hours. Plane B travels 3,885 miles in 7 hours. Which plane is faster? Explain your reasoning.

(from Unit 3, Lesson 5)

6. A car has 15 gallons of gas in its tank. The car travels 35 miles per gallon of gas. It uses $\frac{1}{35}$ of a gallon of gas to go 1 mile.

   a. How far can the car travel with 15 gallons? Show your reasoning.

   b. How much gas does the car use to go 100 miles? Show your reasoning.

(from Unit 3, Lesson 6)