Name _____ Period _____

Unit 3 Rate and Percent Week of 11/26/18

Learning Targets from 6th Grade Common Core State Standards:

Lesson 1 The Burj Khalifa:

- ☐ I can see that thinking about "how much for 1" is useful for solving different types of problems.

Lesson 2 Anchoring Units of Measurement:

- ☐ When I read or hear a unit of measurement, I know whether it is used to measure length, weight, or volume.
- ☐ I can name common objects that are about as long as 1 inch, foot, yard, mile, millimeter, centimeter, meter, or kilometer.
- ☐ I can name common objects that weigh about 1 ounce, pound, ton, gram, or kilogram, or that hold about 1 cup, quart, gallon, milliliter, or liter.

Lesson 3 Measuring with Different Sized Units:

- ☐ When I know a measurement in one unit, I can decide whether it takes more or less of a different unit

Lesson 4 Converting Units

- ☐ I know that when we measure things in two different units, the pairs of measurements are equivalent ratios.
- ☐ I can convert measurements from one unit to another, using double number lines, tables, or by thinking about "how much for 1."

This Week's Vocabulary Words:
convert equivalent ratios unit measurement length area volume

Homework is due the following day.

Day	Class work—All in Spiral using iPad ☺	Homework—	Complete	Correct
Monday	Lesson 1 The Burj Khalifa	Pages 1 & 2 & 3: Lesson 1 Practice Problems—Choose TWO of the first 4 problems, then do 5, 6, 7	/4	/8
Tuesday	Lesson 2 Anchoring Units of Measurement	Pages 4 & 5: Lesson 2 Practice Problems—Do 1, 2 & 3, then choose TWO from 4, 5, & 6	/4	/22
Wednesday	Lesson 3 Measuring with Different Sized Units	Pages 6 & 7: Lesson 3 Practice Problems—All	/4	/18
Thursday	Lesson 4 Converting Units	Pages 8 & 9: Lesson 4 Practice Problems—1, 2, 3, 5, 6, 7--# 4 is the Challenge	/4	/20
Friday	Lesson 4 Cool Down and Catch up.	None		
		Total	/16	
		Quality	/4	
		Total	/20	

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)

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Unit 3, Lesson 1: The Burj Khalifa

Choose TWO from 1-4

1. An elevator travels 310 feet in 10 seconds. At that speed, how far can this elevator travel in 12 seconds? Explain your reasoning.

Feet	Seconds

1

2. Han earns $33.00 for babysitting 4 hours. At this rate, how much will he earn if he babysits for 7 hours? Explain your reasoning.

$	Hours

1

3. The cost of 5 cans of dog food is $4.35. At this price, how much do 11 cans of dog food cost? Explain your reasoning.

Cans	$

1

4. A restaurant has 26 tables in its dining room. It takes the waitstaff 10 minutes to clear and set 4 tables. At this rate, how long will it take the waitstaff to clear and set all the tables in the dining room? Explain or show your reasoning.

Tables	Minutes

1

5. A sandwich shop serves 4 ounces of meat and 3 ounces of cheese on each sandwich. After making sandwiches for an hour, the shop owner has used 91 combined ounces of meat and cheese.

Whole Part Part

a. How many combined ounces of meat and cheese are used on each sandwich?

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b. How many sandwiches were made in the hour?

c. How many ounces of meat were used?

d. How many ounces of cheese were used?

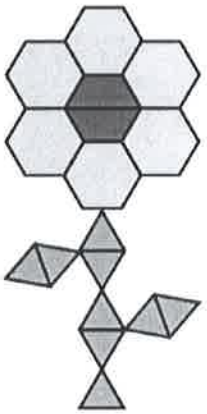
/4

(from Unit 2, Lesson 16)

6. Here is a flower made up of yellow hexagons, red trapezoids, and green triangles.

a. How many copies of this flower pattern could you build if you had 30 yellow hexagons, 50 red trapezoids, and 60 green triangles?

b. Of which shape would you have the most left over?



(from Unit 2, Lesson 14)

/2

7. Match each quantity in the first list with an appropriate unit of measurement from the second list.

(next page)

/8

2 possible bonus

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A. the perimeter of a baseball field	1. centimeters (cm)
B. the area of a bed sheet	2. cubic feet (cu ft)
C. the volume of a refrigerator	3. cubic kilometers (cu km)
D. the surface area of a tissue box	4. meters (m)
E. the length of a spaghetti noodle	5. square feet (sq ft)
F. the volume of a large lake	6. square inches (sq in)
G. the surface area of the the moon	7. square kilometers (sq km)

/7

(from Unit 1, Lesson 16)

/15

2 possible bonus

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Unit 3, Lesson 2: Anchoring Units of Measurement

1. Select the unit from the list that you would use to measure each object.

1. The length of a pencil 2. The weight or mass of a pencil 3. The volume of a pencil 4. The weight or mass of a hippopotamus 5. The length of a hippopotamus 6. The length of a fingernail clipping 7. The weight or mass of a fingernail clipping 8. The volume of a sink 9. The volume of a bowl 10. The length of a chalkboard or whiteboard 11. The weight or mass of a chalkboard or whiteboard 12. The length of the border between the United States and Canada	a) centimeters b) cups c) feet d) gallons e) grams f) inches g) kilograms h) kilometers i) liters j) meters k) miles l) milliliters m) millimeters n) ounces o) pounds p) quarts q) tons r) yards

12

2. When this pet hamster is placed on a digital scale, the scale reads 1.5.

What could be the units?

1

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3. Circle the larger unit of measure. Then, determine if the unit measures distance, volume, or weight (mass).

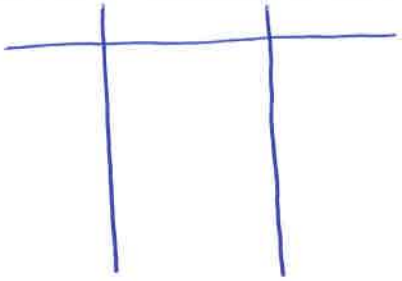
   1. meter or kilometer
   2. yard or foot
   3. cup or quart
   4. pound or ounce
   5. liter or milliliter
   6. gram or kilogram

/6

Choose 2 of 3

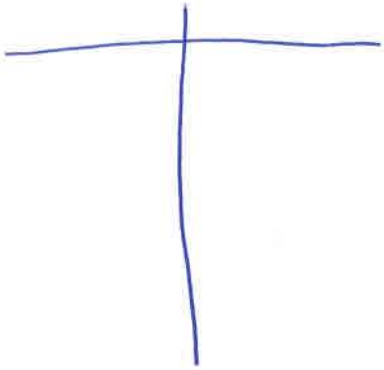
4. Elena mixes 5 cups of apple juice with 2 cups of sparkling water to make sparkling apple juice. For a party, she wants to make 35 cups of sparkling apple juice. How much of each ingredient should Elena use? Explain or show your reasoning. (U2, L15)

Part Part Whole



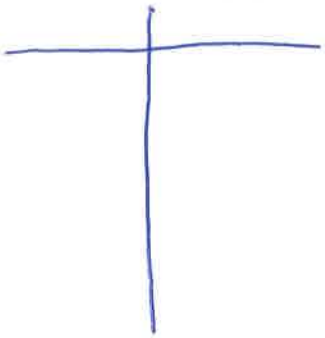
/1

5. Lin bought 3 hats for $22.50. At this rate, how many hats could she buy with $60.00? If you get stuck, try using a table. (from U2, L12)



/1

6. Light travels about 180 million kilometers in 10 minutes. How far does it travel in 1 minute? How far does it travel in 1 second? Show your reasoning. (from U2, L9)



/1

/22

1 possible bonus

5

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Unit 3, Lesson 3: Measuring with Di#erent-Sized Units

1. Decide if each is a measurement of length, area, volume, or weight (or mass).

   a. How many centimeters across a handprint

   b. How many square inches of paper needed to wrap a box

   c. How many gallons of water in a =sh tank

   d. How many pounds in a bag of potatoes

   e. How many feet across a swimming pool

   f. How many ounces in a bag of grapes

   g. How many liters in a punch bowl

   h. How many square feet of grass in a lawn

   (from Unit 3, Lesson 2)

   8

2. Clare says, "This classroom is 11 meters long. A meter is longer than a yard, so if I measure the length of this classroom in yards, I will get less than 11 yards." Do you agree with Clare? Explain your reasoning.

   1

3. Tyler's height is 57 inches. What could be his height in centimeters? Explain your reasoning.

   A. 22.4
   B. 57
   C. 144.8
   D. 3,551

   1

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4. A large soup pot holds 20 quarts. What could be its volume in liters?

   A. 7.57
   B. 19
   C. 21
   D. 75.7

/1

5. Clare wants to mail a package that weighs $4\frac{1}{2}$ pounds. What could this weight be in kilograms?

   A. 2.04
   B. 4.5
   C. 9.92
   D. 4,500

/1

6. Noah bought 15 baseball cards for $9.00. Assuming each baseball card costs the same amount, answer the following questions.

   a. At this rate, how much will 30 baseball cards cost? Explain your reasoning.

   b. At this rate, how much will 12 baseball cards cost? Explain your reasoning.

   c. Do you think this information would be better represented using a table or a double number line? Explain your reasoning.

/3

(from Unit 2, Lesson 13)

7. Jada traveled 135 miles in 3 hours. Andre traveled 228 miles in 6 hours. Both Jada and Andre traveled at a constant speed.

   a. How far did Jada travel in 1 hour?

   b. How far did Andre travel in 1 hour?

   c. Who traveled faster? Explain or show your reasoning.

/3

(from Unit 2, Lesson 9)

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Unit 3, Lesson 4: Converting Units

1. Priya's family exchanged 250 dollars for 4,250 pesos. Priya bought a sweater for 510 pesos. How many dollars did the sweater cost?

pesos	dollars
4,250	250
	25
	1
	3
510	

/4

2. There are 3,785 milliliters in 1 gallon, and there are 4 quarts in 1 gallon. For each question, explain or show your reasoning.

   a. How many milliliters are in 3 gallons?

   b. How many milliliters are in 1 quart?

/2

3. Lin knows that there are 4 quarts in a gallon. She wants to convert 6 quarts to gallons, but cannot decide if she should multiply 6 by 4 or divide 6 by 4 to find her answer. What should she do? Explain or show your reasoning. If you get stuck, consider drawing a double number line or using a table.

4. Tyler has a baseball bat that weighs 28 ounces. Find this weight in kilograms and in grams. (Note: 1 kilogram ≈ 35 ounces) Challenge

5. Identify whether each unit measures length, volume, or weight (or mass). Next page

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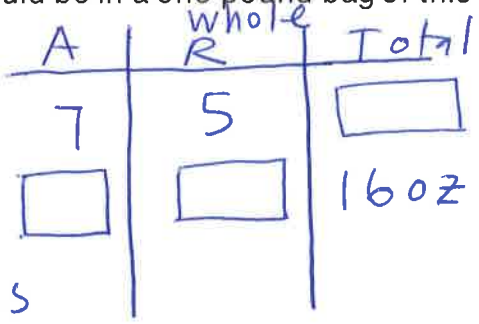
a. Mile
b. Cup
c. Pound
d. Centimeter
e. Liter
f. Gram
g. Pint
h. Yard
i. Kilogram
j. Teaspoon
k. Milliliter

(from Unit 3, Lesson 1)

11

6. A recipe for trail mix uses 7 ounces of almonds with 5 ounces of raisins. (Almonds and raisins are the only ingredients.) How many ounces of almonds would be in a one-pound bag of this trail mix? Explain or show your reasoning.

part part



1

(from Unit 2, Lesson 11)

Fill in more as needed

7. An ant can travel at a constant speed of 980 inches every 5 minutes.

a. How far does the ant travel in 1 minute?

b. At this rate, how far can the ant travel in 7 minutes?

2

(from Unit 2, Lesson 9)

20