Name _____   Period _____

Unit 3 Rate and Percent Week of 12/2/19

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	No School Grading Day			
Tuesday	Lesson 1 The Burj Khalifa	Pages 1 & 2: Lesson 1 Practice Problems—Choose TWO of the first 4 problems, then do 5, 6, 7	/5	/15
Wednesday	Lesson 2 Anchoring Units of Measurement	Pages 3 & 4: Lesson 2 Practice Problems—Do 1, 2 & 3, then choose TWO from 4, 5, & 6	/5	/22
Thursday	Lesson 3 Measuring with Different Sized Units	Pages 5 & 6: Lesson 3 Practice Problems—All	/5	/18
Friday	Lesson 4 Converting Units	None		
		Total	/15	
		Quality	/4	
		Total	/19	

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

   /|

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

   /|

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 | $

   /|

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

   /|

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?
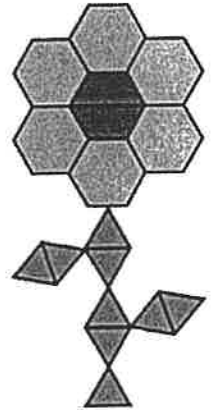
(from Unit 2, Lesson 14)   /2

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

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)   /7

G. the surface area of the the moon   7. square kilometers (sq km)

2 possible bonus

Total   /15

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

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

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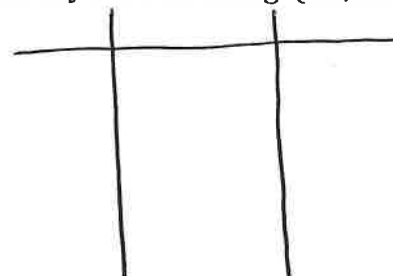
5. Lin bought 3 hats for $22.50. At this rate, how many hats could she buy with $60.00? If you get stuck, try using a table. (from U2, L12)

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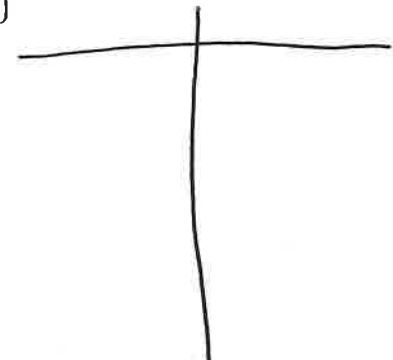
6. Light travels about 180 million kilometers in 10 minutes. How far does it travel in 1 minute? How far does it travel in 1 second? Show your reasoning. (from U2, L9)

/1

Choose 2 of 3

/22

1 possible bonus
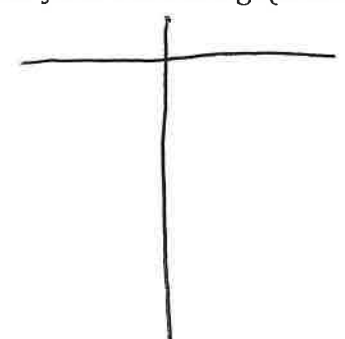
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Unit 3, Lesson 3: Measuring with Different-Sized Units

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

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

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.

(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.

(from Unit 2, Lesson 9)