

Name _____ Date _____ Period _____

Unit 2 Test Correction/Retake Study Guide Assignment

If you scored less than an 80% or did not complete **RP.3 or RP.3a,b**, complete the following problems:

1. Julianna participated in a walk-a-thon to raise money for cancer research. She recorded the total distance she walked at several different points in time, but a few of the entries got smudged and can no longer be read. The times and distances that can still be read are listed in the table below.
 - a. Assume Julianna walked at a constant speed. Complete the table and plot Julianna's progress in the coordinate plane.
 - b. How fast was Julianna walking in miles per hour? How long did it take Julianna to walk one mile? **3 miles per hour; 1 mile would take her 1/3 of an hour or 20 minutes**
 - c. Next year Julianna is planning to walk for seven hours. If she walks at the same speed next year, how many miles will she walk? **21 miles**

Time in hrs	Miles walked
1	3
2	6
4	12
5	15

2. The school band is holding a car wash to raise money for new uniforms. Ms. Chang, the band director, wants to order pizza for everyone. After the car wash last year, 24 people ate 12 pizzas.
 - a. Complete this ratio table based on last year's information.

People:	4	16	20	24
Pizzas:	2	4	5	12

- b. How many people will two pizzas feed? **4**
 - c. Ms. Chang is planning to feed 30 people. How many pizzas will she need? **15**

3. A runner ran 20 miles in 150 minutes. If she runs at that speed,
 - a. How long would it take her to run 6 miles? **45 minutes**
 - b. How far could she run in 15 minutes? **2 miles**
 - c. How fast is she running in miles per hour? **8 miles per hour**
 - d. What is her pace in minutes per mile? **7.5 minutes per mile**
4. Nancy traveled 405 miles at a speed of 45 miles per hour. How many hours did it take her? **9**

If you scored less than an 80% or did not complete **RP.3d**, complete the following problems:

1. Jason made 36 pints of lemonade for the class picnic. They drank 30 of the pints at the picnic. How many cups of lemonade were left? (1 pint = 2 cups) **12**
2. Physics tells us that weights of objects on the Earth are proportional to their weights on Moon in the ratio of 5:1. A man weighs 73 kg on the moon. How many grams does he weigh? (1 kg = 1000 g) **73,000**
3. A frame for a painting has a length of .75 meters and a width of .25 meters. If I have 1500 centimeters of wood, do I have enough to make a frame for the painting? Justify your answer. (100 cm = 1 meter) **Yes; I only need 200 cm of wood for the frame**
4. John shipped out a gift to his sister in Chicago. The package weighed 64 ounces. How many pounds did the gift weigh? (16 ounces = 1 pound) **4 pounds**

If you scored less than an 80% or did not complete **RP.3 c**, complete the following problems:

1. A train is traveling from Orlando, FL to Atlanta, GA. So far, it has traveled 75% of the distance, or 330 miles. How far is the train ride from Orlando to Florida? **440**

2. The Fountain of Youth health store is going out of business. To help clear out the remaining merchandise, the store is having a “Save Your Age” sale. Each customer saves the percent equal to his or her age on each purchase.
 - a. Andrew bought a case of all-natural soda originally priced at \$20. Andrew is 14 years old. How much did he pay for the case of soda? **\$2.80 saved; paid \$17.20**
 - b. Andrew’s father bought some soap and shampoo originally priced at \$44. He is 38 years old. How much did he pay for the items? **\$16.72 saved; paid \$27.28**
 - c. Andrew’s mother is 35 years old. She bought a juicer originally priced at \$65. How much did she pay? **\$22.75 saved; paid \$42.25**
3. About 80% of the total number of males in a country play soccer. If there 8 million males playing soccer, how many total males are in the country? **10 million**
4. After buying dog food, Maria went to CD-Rama and bought a CD for \$16 plus 5% sales tax.
 - a. The cashier tried to charge Maria \$22.50, \$16 for the CD and \$6.50 for sales tax. Without actually calculating the tax, how do you know that the cashier made a mistake? Explain your thinking. **Because 10% would be \$1.60 and 5% is less than that so tax would be less than \$1.60.**
 - b. What is the correct amount of sales tax on Maria’s \$16 purchases if the tax rate is 5%? **\$0.80**

If you scored less than an 80% or did not complete **SMP.3**, complete the following problems:

1. How are unit rates helpful in solving problems? Give an example of how you could use unit rate outside of the math classroom.

Unit rates can help us find the cheapest price, the fastest rate, etc. You can use unit rate to find the price per ounce of items at the grocery store to get the “best buy”

2. How are rates and ratios similar and different?

They are similar because they both compare two numbers. Rates compare two different units (miles per hour, miles per gallon)

3. What is a percent? Give two examples of how percents are used as ratios.

Percent is a ratio of a number out of 100. Percent is used to find discounts, sales tax, and tip.