Lesson 2.4 ~ Rate Problem Solving

Name_____ Period_____ Date_____

Complete each equivalent rate.

1. $\frac{20 \text{ miles}}{1 \text{ gallon}} = \frac{180 \text{ miles}}{\text{gallons}}$

2. $\frac{3 \text{ miles}}{1 \text{ hour}} = \frac{\text{miles}}{7 \text{ hours}}$

3. $\frac{5 \text{ kilometers}}{1 \text{ hour}} = \frac{\text{kilometers}}{3 \text{ hours}}$

4. $\frac{60 \text{ words}}{3 \text{ minutes}} = \frac{\text{words}}{9 \text{ minutes}}$

5. $\frac{\$3.50}{1 \text{ gallon}} = \frac{\$}{10 \text{ gallons}}$

6. $\frac{10 \text{ jobs}}{4 \text{ days}} = \frac{40 \text{ jobs}}{\text{days}}$

7. Which rate is *NOT* equivalent to $\frac{500 \text{ miles}}{10 \text{ hours}}$? Explain your choice.

A. $\frac{50 \text{ miles}}{1 \text{ hour}}$ B. $\frac{200 \text{ miles}}{40 \text{ hour}}$ C. $\frac{5 \text{ miles}}{1 \text{ hour}}$ D. $\frac{250 \text{ miles}}{5 \text{ hours}}$

Use equivalent fractions or unit rates to solve each problem.

8. Keisha drove 100 miles in 2 hours. At this rate, how far will she drive in 6 hours?

9. Jimmy paid $75 for 3 people to attend a play downtown. If it costs the same per ticket, how much will Alan pay for 9 people to attend the play next week?

10. Jermaine's new car went 360 miles and used 12 gallons of gas. At this rate, how many miles can he travel using 4 gallons of gas?

11. Martin paid $6.00 for 12 oranges. At this price, how much would he have paid for 16 oranges?

Name _____ Date _____ Core _____

Rate Tables

Number of people	1	2	3	4	5	10	12	
Pieces of candy	3							99

Minutes	1	2	3	4	8	10	14	
Laps Run				2				40

Number of pencils	1	2	3	4	8	10	20	
Cost ($)		3						36

Girls	1	5	10	20	25	30	100	
Boys					20			100

Hours spent on homework			27			63		90
Number of days	5	10		25	30	35	40	

Lesson 2.5C ~ Comparing Rates

Name_____ Period_____ Date_____

Use unit rates to determine which of the two rates is larger.

1. $\frac{\$14.00}{21 \text{ candies}}$ or $\frac{\$15.00}{25 \text{ candies}}$

2. $\frac{27.6 \text{ miles}}{3 \text{ hours}}$ or $\frac{63.7 \text{ miles}}{7 \text{ hours}}$

Write a rate less than the given rate and a rate greater than the given rate. Be sure to use the same units as in the rate given.

	Smaller Rate	Rate	Larger Rate
3.		$\frac{15 \text{ kilometers}}{3 \text{ hours}}$	
4.		$\frac{\$9.00}{6 \text{ tokens}}$	

Solve each problem. Show all thinking.

5. Martin burns 360 calories running for 30 minutes. Paul burns 165 calories for every 15 minutes he runs. If Kara runs for 20 minutes, how many calories would she have to burn to have a rate of calories burned per minute of running that is between Martin and Paul?

6. Kay needs to fix part of her fence. She can buy 6 feet of fencing for $32.00 at a fencing store or 10 feet of fencing for $52.50 at a home store. She visits another store that sells 8 feet of fencing for a certain cost. The cost per foot is between that at the fencing store and the home store. How much might the store charge for 8 feet of fencing?

7. Manny can buy 12 pounds of watermelon for $9.00 at a local fruit stand. He can buy 10 pounds of watermelon for $8.00 at the grocery store. How much would each store charge for 25 pounds of watermelon?

8. Kylie brought 9 tennis balls to practice and lost 2 of them. Tara brought 10 tennis balls to practice and lost 3 of them. Which tennis player lost the fewest number of tennis balls per tennis balls brought to practice?