1. The pump at the BP gas station can fill Ms. Brauer’s new car with gas in 4 minutes. The pump at the Shell can fill the same tank in 3 minutes. If both pumps are used at the same time, how long will it take to fill the tank?

2. It takes a person the same time to walk 10 miles as it takes a car to travel 15 miles in heavy traffic. If the car is traveling 3 mph faster than the person is walking, how fast is each traveling?

3. Brynn put together one-quarter of her Race Paper in 3 hours. If Vishnu works two hours more than Brynn, he can finish one-sixth of the Race Paper. How long would it take to complete 1 Race Paper if they worked together?

**Algebra II/ Trig – In Class Practice Name:**

**Sec. 8.5- Solving Rational Equations Period: 3 7 Date: 5/4/17**

1. The U-High baseball team would like to finish the season with a win percentage of at least 75% (or .75). If the team has already won 12 of the 20 games they have played, how many games does the team need to win in a row to have a win percentage of 75%?
2. Mr. Neisler can grade the 1:00 Algebra 2 Tests in 4 hours. When Ms. Brauer assists him, they can grade the same number of papers in 2.5 hours. About how long would it take Ms. Brauer to grade the papers by herself?
3. Working together, it takes Catherine, Jenna, and Lana two hours to paint one room. When Catherine is working alone, she can paint the room in 6 hours; Jenna can paint the room in 4 hours on her own. How long would it take Lana to paint the room on her own?
4. Derek can build a laptop twice as fast as David. Working together, it takes them 5 hours. How long will it take Derek working alone?
5. Mason can mow the lawn in 20 minutes. Paul can mow the lawn in 30 minutes. If they work together, how long will it take them to mow the lawn?
6. Three machines are twisting pretzels. Two are old and one is new. The new machine can twist pretzels twice as fast as an old machine can. An old machine can twist the daily quota of pretzels in 20 hours. How long will it take to make the quota if the machines are operated at the same time?
7. Alyssa swam downstream at 6 mph and then swam back upstream at 4 mph. If she swam for a total of 1.25 hours, how far did she swim in all?
8. Katy can jog 5 miles downhill in the same time that is takes her to jog 3 miles uphill. Find her jogging rate for each way if she jogs downhill 4 mph faster than she jogs uphill.
9. Ms. Brauer can finish tonight’s homework 3 times faster than one of her students. Working together, they can finish the homework in 6 minutes. How long would it take each one working alone to finish the homework?