Algebra 2H **HW #_____** Name_____
Worksheet 9CH
Word Problems 9.6 Per._____ Col._____

Write equations and do all work on this paper.

1. It takes Alan 3 days to cultivate the garden. It takes Helga 4 days to do the same job. How long would it take them to do the job if they worked together?

2. Joe can wash his truck in 45 minutes. If Jim helps him, it will only take 18 minutes. How long would it take Jim, working alone, to wash the truck?

3. A car travels 300 km in the same time that a freight train travels 200 km. The speed of the car is 20km/hr faster than the speed of the train. Find the speeds of the car and train.

4. The jet stream is a high speed, high altitude wind. Flying east with the jet stream, a weather service plane can travel 2100 km in the same time that it travels 1400 km west with against the jet stream. If the plane's airspeed is 700 km/hr, find the speed of the jet stream.

5. George ran downhill at a speed of 6 miles per hour and then ran back uphill at 4 miles per hour. If the total time running was $1\frac{1}{4}$ hours, find the total distance George ran.

6. Josh plans to run a 12.2 mile course. For the first 8.4 miles he plans to run at a slower space, and then he plans to speed up by 2 mph for the rest of the course. What is the slower pace Josh will need to run for the first part of the course in order to complete the entire course in 2 hours?

7. A boat travels 120 miles upstream against a 2 mph current, waits one hour, and then travels back downstream to the starting point. If the entire trip takes 12 hours, find the speed of the boat.

8. Megan can harvest a strawberry patch in 12 hours, and Krista can do the same job in 8 hours. If Krista starts helping 2 hours after Megan has begun working, find the total time it would take them, working together, to harvest the strawberry patch.

9. Pump A works at a rate of 200 gallons faster than Pump B. Pump B put 4000 gallons into a storage tank and then Pump A put 6000 gallons in. It took 11 hours to fill the 10,000 gallon tank. Find the rate for each pump, in gallons per hour.