

1. It takes Alan 3 days to cultivate the garden. It takes Helga 4 days to do the same job. How long does it take them to do the job if they work 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 20 km/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, against the jet stream. If the plane's airspeed is 700 km/hr, find the speed of the jet stream.
5. George jogged downhill at 6 miles per hour and then jogged back up at 4 miles per hour. If the total jogging time was $1\frac{1}{4}$ hours, find the total distance George jogged.

Solve each problem. (These are extra fun!)

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

7. A boat travels 120 miles upstream against a 2 mph current, waits 1 hour, and then travels back down again. If the entire trip took 12 hours, find the speed of the boat.

8. Megan can harvest a strawberry patch in 12 hours, and Krista can do the job in 8 hours. If Krista starts 2 hours after Megan has begun working, find the total time needed to do the job.

9. Pump A works at a rate 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.