UNIFORM MOTION PROBLEMS

1. Two trains start from the same station and run in opposite directions. One runs at an average rate of 40 miles per hour, and the other at 65 miles per hour. In how many hours will they be 315 miles apart?

2. Two men, A and B, start toward each other at the same time from points 510 miles apart. If they travel 40 and 45 miles an hour respectively, in how many hours will they meet?

3. A train is traveling 30 miles per hour. A car starts out from the same place 2 hours later and overtakes the train in 3 hours. How fast was the car going?

4. Bill starts out in his auto traveling 30 miles per hour. Four hours later Juan starts out from the same point at 60 miles per hour to overtake Bill. In how many hours will it take to catch him?

4a. Bill starts out in his auto traveling 30 miles per hour. Four hours later Juan starts out from the same point at 60 miles per hour to overtake Bill. If Bill stops for an hour to fix a flat, in how many hours will it take to catch him?