1. How many gallons of 50% antifreeze must be mixed with 80 gal of 20% antifreeze to obtain a mixture that is 40% antifreeze?

2. You win a prize for your artwork. You invest part of the money in a certificate of deposit at 4% and \$3000 more than that amount in a bond paying 5%. Your annual interest income is \$780. How much did you invest at each rate?

3. The Los Angeles airport (LAX) and San Francisco airport (SFO) are 338 miles apart. A plane leaves LAX towards SFO at an average rate of 200 mph. At the same time, another plane leaves SFO towards LAX at an average rate of 150 mph. How long will it take them to meet?