1) An acid solution was made by mixing 5 ml of a 6% acid solution and 10 ml of a 66% acid solution. Find the concentration of the new mixture.

2) Emily wants to make a 25% saline solution. She has already poured 7 gal. of pure water into a beaker. How many gal. of a 60% saline solution must she add to this to create the desired mixture?

3) 12 fl. oz. of an alcohol solution was mixed with 3 fl. oz. of pure water to make a 56% alcohol solution. Find the percent concentration of the first solution.

4) Jose asked you to make 10 L of fruit punch that contains 26% fruit juice by mixing together some amount of Brand A fruit punch and some amount of Brand B fruit punch. Brand A contains 30% fruit juice and Brand B contains 10% fruit juice. How much of each do you need?

5) Wilbur left the movie theater and drove toward the town hall at an average speed of 70 mph. Kali left one hour later and drove in the opposite direction with an average speed of 70 mph. How long does Kali need to drive before they are 630 mi. apart?

6) A diesel train traveled to the repair yards and back. The trip there took ten hours and the trip back took eight hours. It averaged 5 mph faster on the return trip than on the outbound trip. Find the diesel train's average speed on the outbound trip.

7) Molly left Pranav's house and drove toward the mountains. Stephanie left one hour later driving at 30 km/h in an effort to catch up to Molly. After driving for five hours Stephanie finally caught up. Find Molly's average speed.

8) Working alone, Kim can paint a fence in ten hours. One day her friend Jenny helped her and it only took 4.74 hours. How long would it take Jenny to do it alone?