

4) Rehman invests his summer earnings of \$3050. He invests part of the money at 8% per year, and the rest at 7.5% per year. After 1 year, these investments earn \$242 in simple interest. How much did he invest at each rate?

5) To join Karate Klub, David must pay a monthly fee of \$25 and an initial fee of \$200. If he chooses Kool Karate, he must pay an initial fee of only \$100 but \$35 per month.

a) After how many months is the cost the same at either karate club?

b) If David plans to try karate for 6 months, which club should he join?

c) If David decides to do karate for a year, which club should he join?

6) White vinegar is a solution of acetic acid in water. There are two strengths of white vinegar, a 5% solution and a 10% solution. How many ml of each solution must be mixed to make 50 ml of a 9% vinegar solution?

7) It took a patrol boat 5 hours to travel 60 km up a river against the current, and 3 hours for the return trip with the current. Find the speed of the boat in still water and the speed of the current.

8) Kareem took 5 hours to drive 470 km from Sudbury to Brantford. For part of the trip, he drove at 100 km/h. For the rest of the trip, he drove at 90 km/h. How far did he drive at each speed?

Answers

- 1) 24 crocus bulbs and 8 tulip bulbs
- 2) 10 beta tapes and 7 vhs tapes
- 3) 30 cars and 14 vans
- 4) \$2650 at 8%/year and \$400 at 7.5%/year
- 5) a) 10 months b) Kool Karate c) Karate Klub
- 6) 10 ml of the 5% solution, 40 ml of the 10% solution
- 7) boat in still water 16 km/h; current 4km/h
- 8) 200km at 100km/h; 270 km at 90km/h