

1. The larger of two numbers is 8 more than four times the smaller. If the larger is increased by 4 times the smaller, the result is 40. Find the numbers.
2. The length of a rectangle is 4 cm less than 3 times the width. The perimeter is 64 cm. Determine the length and width.
3. Two years ago, Katie was twice as old as Anne was then. In 5 years, Anne will be the same age that Katie is now. How old are Anne and Katie now?
4. Sportcheck sells Asics running shoes for \$82 a pair and New Balance running shoes for \$95 a pair. One day, Sportcheck sold 75 pairs of Asics and New Balance shoes for \$6241. How many pairs of each shoe were sold?



### Part 2 Problem Solving

1. A gum ball machine contains only quarters and dimes. There are 28 coins whose total value is \$5.35. How many quarters are there?



2. A helicopter pilot finds that with a tail wind a 120 km distance takes 45 minutes. The return trip, into the wind, takes one hour. Determine the rate of the helicopter in still air and the rate of the wind.



3. A plane left Montreal for Calgary, a distance of 3000 km, travelling at 550 km/h. At the same time, a plane left Calgary for Montreal travelling at 450 km/h. How long after take-off did the planes pass each other?

4. A freight train and a passenger train are in stations 540 km apart. The freight train leaves the station at noon travelling at 60 km/h in the direction of the passenger train. One hour later, the passenger train leaves and heads towards the freight train at 90 km/h. At what time will the two trains meet?