1. Flying to California with a tailwind a plane averaged 158 km/h. On the return trip the plane only averaged 112 km/h while flying back into the same wind. Find the speed of the wind and the speed of the plane in still air.
2. The sum of the digits of a two-digit number is 7. Reversing its digits increases the number by 9. What is the number?
3. Ann is 2 years older than Betty. Last year Ann was 2 times as old as Betty was then. How old is Ann?
4. Jerry is 7 years older than Jennifer. In three years Jerry will be twice as old as Jennifer will be. Find their current ages.
5. The wind is blowing at 60 km/h. With a tail wind, a light plane can fly a certain distance in 2 hours. With a head wind, it takes the plane 3 hours to cover the same distance. Find the speed of the plane in still air and the distance of the plane’s flight.
6. John’s father is 5 times older than John and John is twice as old as his sister Alice. In two years time, the sum of their ages will be 58. How old is John now?
7. The sum of the ages of a man and his son is 82 years. How old is each now if 11 years ago, the man was twice his son’s age?
8. The sum of the digits of a 2 digit number is 14. If the digits are reversed, then the value of the new number is 19 times the original tens digit.
9. A passenger jet took 90 minutes to fly 900 miles in the direction of the jet stream. The return trip against the jet stream took 2 hours. What was the jet’s speed? What was the jet stream’s speed?
10. The hundreds’ digit of a three-digit number is 2 more than twice the tens’ digit. The tens’ digit is 1 less than twice the units’ digit. If the order of the digits is reversed, the number obtained is 594 less than the original number. Find the original number.
11. A boat travels 4 km in 20 minutes with the current. The return trip takes 24 minutes. Find the speed of the current and the speed of the boat in still water.