

### Challenging Problems

Answer each of the following questions. Show your work and write your statements clearly.

13. Janet and Cindy travelled from town M to town N at uniform speeds of 95 km/h and 104 km/h respectively, at the same time. Some time later, they were 15 km apart. How long had they been travelling?

$$1\frac{2}{3}$$

14. Edwin and Winston set off town X to town Y at uniform speeds at the same time. When Edwin reached town Y, Winston was still 210 km away. 3 hours later, Winston also reached town Y. If the two towns were 560 km apart, at what speed was Edwin travelling?

$$112 \text{ km/h}$$

15. Henry and Tom started driving from the same place but in opposite directions along a straight road. 4 hours later, they were 680 km apart. If Henry was driving at an average speed of 65 km/h, at what average speed was Tom travelling?

$$105 \text{ km/h}$$

16. Andy travelled from town P to town Q at an average speed of 80 km/h. One hour later, Mike also travelled from town P to town Q at an average speed of 100 km/h. If Mike reached town Q  $4\frac{1}{2}$  hours later, how far away was Andy from town Q then?

10 km