

Solution

Pupils should first identify what the next palindromic number is after 8998.
The next palindromic number is 9009.

$$9009 - 8998 = 11$$

Justine and her friends have travelled 11 miles in 10 minutes.

If they travelled 11 miles in 10 minutes then (if maintained) they could travel 66 miles in 60 minutes.

Justine was travelling (on average) at 66 mph.

$$60 \div 10 = 6$$

$$11 \times 6 = 66$$

66 mph

