Question 12 **(6 marks)**

Virat purchases a new motor vehicle for $24 500. For the first two years the vehicle depreciates at a rate of 13% per year and for the third year it depreciates at a lower rate of 9.5% per year.

(a)   Calculate the value of the vehicle after one year.   (1 mark)

(b)   Calculate the value of the vehicle after the first three years.   (2 marks)

For the next three years the rate of depreciation is constant at r% per year. The average rate of depreciation for the first six years is 11% per year.

(c)   Calculate the value of r as a percentage.   (3 marks)