

4. In 1997 the average CO<sub>2</sub> emissions of new cars in the UK was 190 g/km.

In 2005 the average CO<sub>2</sub> emissions of new cars in the UK had fallen to 169 g/km.

Given  $A$  g/km is the average CO<sub>2</sub> emissions of new cars in the UK  $n$  years after 1997 and using a linear model,

(a) form an equation linking  $A$  with  $n$ .

**(3)**

In 2016 the average CO<sub>2</sub> emissions of new cars in the UK was 120 g/km.

(b) Comment on the suitability of your model in light of this information.

**(3)**