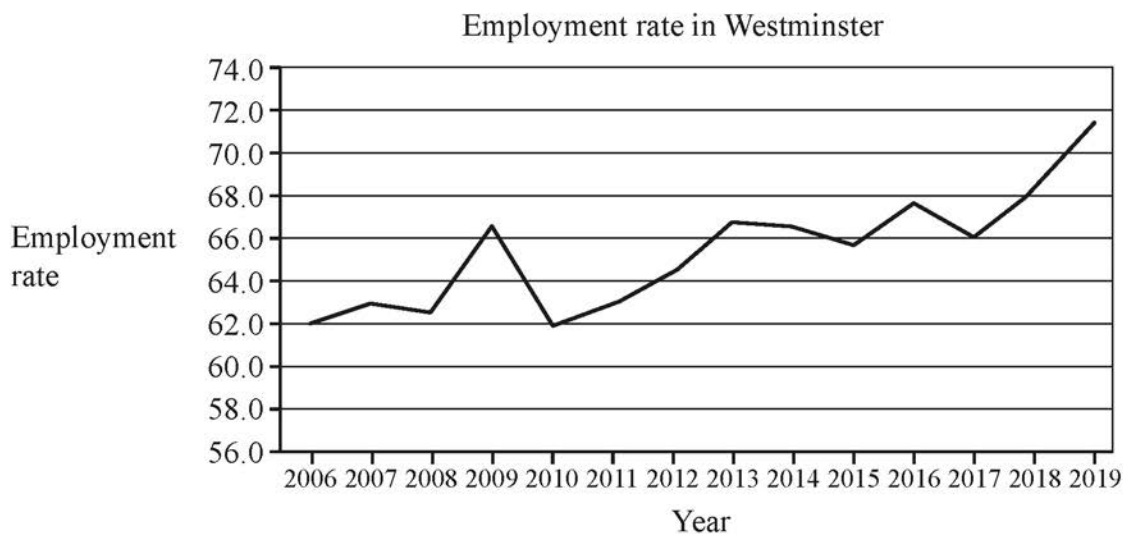


- 6 The pre-release material contains information about employment rates in London boroughs. The graph shows employment rates for Westminster between 2006 and 2019.



A local politician stated that the diagram shows that more than 60% of seventy-year-olds were in employment throughout the period from 2006 to 2019.

- (a) Use your knowledge of the pre-release material to explain whether there is any evidence to support this statement. [1]

In order to estimate the employment rate in 2020, two different models were proposed using the LINEST function in a spreadsheet.

Model 1 (using all the data from 2006 onwards)

$$Y = 0.549x - 1040,$$

Model 2 (using data from 2017 onwards)

$$Y = 2.65x - 5280,$$

where Y = employment rate and x = calendar year.

It was subsequently found that the employment rate in Westminster in 2020 was 68.4%.

- (b) Determine which of the two models provided the better estimate for the employment rate in Westminster in 2020. [3]
- (c) Use your knowledge of the pre-release material to explain whether it would be appropriate to use either model to estimate the employment rate in 2020 in other London boroughs. [1]
- (d) What does model 2 predict for employment rates in Westminster in the long term? [1]