Question 7 **(9 marks)**

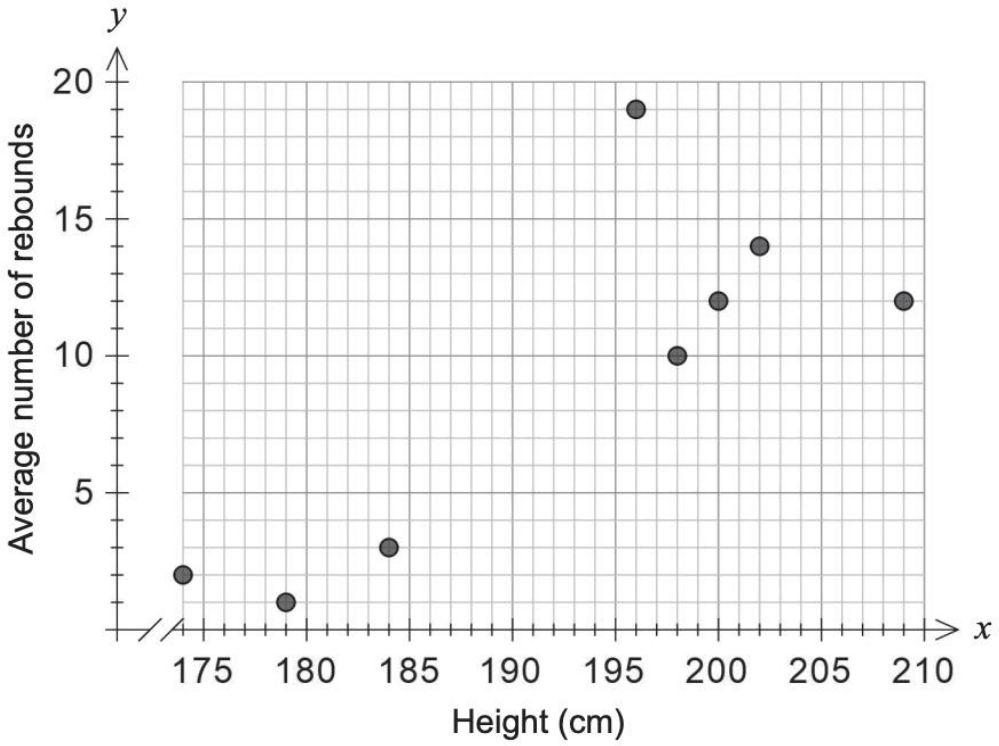
The heights of players and the average number of rebounds per game were recorded for a basketball team over the course of a 30 game season. The data collected is shown in the table below.

Player	Height (x) (cm)	Average number of rebounds (y)
1	198	10
2	174	2
3	200	12
4	182	2
5	184	3
6	209	12
7	196	19
8	185	8
9	202	14
10	179	1

(a) Identify the explanatory variable. (1 mark)

(b) Complete the scatter graph below by plotting the missing data from the table.

(2 marks)



The data has a correlation coefficient of 0.814, and the equation of the least-squares line is $y = 0.43x - 74.23$.

(c) Draw the least-squares line on the graph above. (2 marks)

(d) Describe the association between players' heights and average number of rebounds in terms of direction and strength. (2 marks)

(e) Determine the coefficient of determination and state its meaning in the context of the question. (2 marks)