Question 14 **(10 marks)**

The table below contains data provided by the Australian Bureau of Statistics. It shows the number of households with and without internet access from 2014–2017. All values are in thousands of households.

Internet access

State/territory	2014–15			2016–17		
	Households with internet access '000	**Households without internet access '000**	**Total '000**	**Households with internet access '000**	**Households without internet access '000**	**Total '000**
New South Wales	2407.9	414.5	2822.4	2439.9	421.8	2861.7
Victoria	1934.2	305.1	**A**	2008.2	305.8	2314.0
Queensland	1552.4	248.5	1800.9	1591.9	249.8	1841.7
South Australia	565.1	121.4	686.5	575.5	**B**	696.6
Western Australia	843.6	113.0	956.6	859.7	112.6	972.3
Tasmania	172.0	38.7	210.7	177.7	36.2	213.9
Northern Territory	58.1	6.3	64.4	57.6	7.3	64.9
Australian Capital Territory	137.2	9.0	146.2	140.1	9.7	149.8
Total	7670.5	1256.5	8927.0	7850.6	1264.3	9114.9

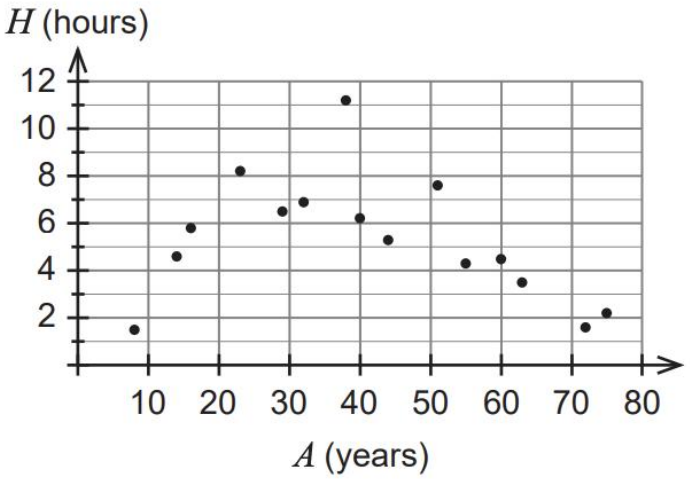
(a) (i) Determine the value of **A** and **B** in the table above. (2 marks)

(ii) Compare the percentages, correct to two decimal places, of households with internet access in New South Wales between 2014–15 and 2016–17. Comment on your results. (3 marks)

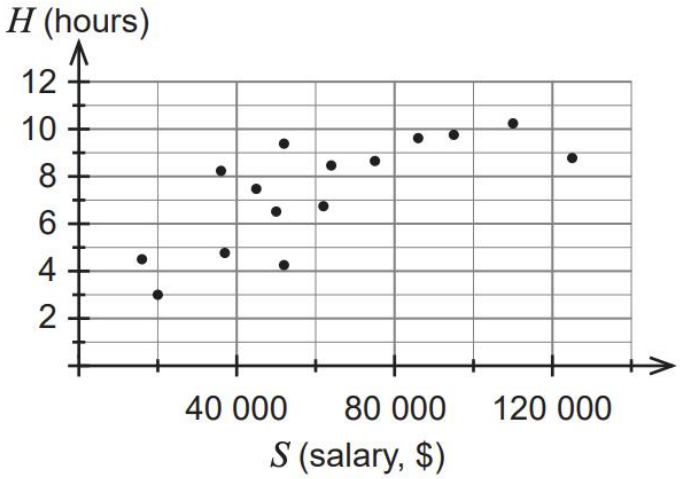
(iii) What is the difference in the data for households with internet access for the Northern Territory over the time period shown, compared to other States and Territories? (1 mark)

An internet service provider from Tasmania wanted to determine whether a person's age, A, or salary, S, affected the number of hours, H, of internet usage per day. The graphs below each show the recorded data for people surveyed.

Daily Internet Usage According to Age



Daily Internet Usage According to Salary



(b) (i) Describe the association between a person's salary and the number of hours of internet usage per day, in terms of direction and form. (2 marks)

(ii) The internet service provider calculated the correlation coefficient for the data contained in each graph. The values they calculated are contained in the following list.

–1.25, –0.95, –0.75, –0.3, 0.1, 0.3, 0.75, 0.95, 1.25

Choose the best estimate from the list for each of the graphs shown above.

(2 marks)

Graph	Correlation coefficient
Daily internet usage according to age	
Daily internet usage according to salary	