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2. A holiday camp manager wishes to investigate the popularity of the three activities the camp offers to teenagers who attend. A random sample of 560 teenagers, who attended the camp, are asked which of the three activities is their favourite. The results are given in the table below.

		Activity		
		Water sports	**Bushcraft**	**Mountain activities**
Gender	**Boys**	142	96	90
	Girls	110	46	76

(a) Test, at the 5% level of significance, whether or not there is evidence of an association between the teenagers' favourite activity and their gender. Show your working clearly, stating your hypotheses and degrees of freedom. You should state your expected frequencies correct to 2 decimal places where necessary.

(9)

(b) State which of the three activities could be worth further investigation. Give a reason for your answer.

(1)

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Question 2 continued

(Total 10 marks)

Q2