





- d** See answer to **c**.  
**e** Another sample would be taken after the 2nd sample. Production would be stopped and the machines reset after the 7th sample.
- 11 a** All the students at the university.  
**b** A closed question because it gives a clear answer.  
**c** E.g. Tick the box that best describes the amount of rent you pay each week. This should be followed by up to five non-overlapping boxes that cover all possibilities (e.g. under £100, £100 up to £124.99, £125 up to £150, over £150).  
**d** Any **five** of the following: it will identify problems; it shows the possible responses; it finds errors; it checks the questions are clear; it gives feedback so things can be changed; it costs money, but might save it in the long run; it takes time, but might save it in the long run.
- 12 a** They are randomly spread in the lake.  
**b** 240
- 13 a** Binomial                                      **b** It is constant.  
**c ii)** 0.256  
**ii)** Three or four times are equally likely.  
**d** Unlikely. She should have got three hits for her claim to be true.

**14 a**

	Given pocket money	Had to earn pocket money	Did not get pocket money	Total
Girls	35	15	5	55
Boys	35	8	2	45
Total	70	23	7	100

- b ii)**  $\frac{7}{10}$  ( $= \frac{70}{100}$ )                                      **ii)**  $\frac{3}{20}$  ( $= \frac{15}{100}$ )
- c** The following points need to be made: equal numbers of boys and girls were given pocket money but more girls than boys had to earn their pocket money and more girls than boys did not get any pocket money.
- d** 232 (2006); 222.5 (2007)      **e** 132%  
**f** Increased yearly until the last year when it went down.