



Q	Answer	Marks
1	240	2
2	a) 432 b) The sample is representative of all the people who visited	3
3	The sample is too small (only 5 of 600). The sample is biased: his friends in the football team are likely to prefer football, so they do not represent all the students.	2
4	a) 1960 b) The sample is representative; if not, the estimate would be unreliable	3
5	a) 225 b) The sample may not be representative of the batch (or it may be too small)	3
6	juniors) 20 seniors) 30	3
7	Only people who watch the show and chose to phone could vote, so the sample is not random or representative of the whole town. People with strong opinions are more likely to phone, and people can phone more than once or live outside the town.	3
8	a) People at a railway station at 8 am are mostly commuting by train, so car users would be under-represented b) 1190	3
9	a) 960 b) 600	3
10	a) 32 boys and 28 girls b) 218	3
11	Number the students 1 to 900 down the list. Use a random number generator to produce numbers between 1 and 900, ignoring repeats, until 30 different numbers are chosen. The students with those numbers form the sample.	3
12	a) 200 b) The sample only covers the first hour, so it may not be representative of the whole day's production	3
13	a) 1080 b) Year 7 students may have different tastes from other year groups, so the sample is biased and the estimate may be too high or too low c) Choose students at random from every year group (a random sample of the whole school)	4

Full worked solutions, written out by hand, are on the solutions sheet for this topic.