

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
5	7500	M1	for method to find expected number of model B, eg $\frac{15}{80} \times 40000$ oe  or $\frac{15}{"23+15+30+12"} \times 40000$ oe	
<b>Q1</b>		A1	cao	

Paper: 1MA1/1H				
Question	Working	Answer	Mark	Notes
13 (a)		120	P1	for $\frac{4 \times 450}{15}$ or $\frac{4}{15} = \frac{x}{450}$ oe
<b>Q2</b>		$\frac{165}{450}$	A1	cao
			P1	5.5 or 6.5 or 165 or $\frac{5 \times 450}{15}$ (=150) and $\frac{6 \times 450}{15}$ (=180)
			A1	for $\frac{165}{450}$ oe

Paper: 1MA1/2H					
Question	Answer	Mark	Mark scheme	Additional guidance	
3	(i)	65	M1	for working with proportion eg $10 \div 30 \times 195 (=65)$	Condone use of 200 for 195
	(ii)	statement	A1 C1	cao for statement	
<b>Q3</b>				<p><b>Acceptable examples</b>  sample is representative (otherwise answer wrong)  random sample (otherwise answer will be different)  the 30 students are from the 195 (otherwise not accurate)  10 out of every 30 want to go to the Theme Park (otherwise answer will be different/wrong)  there is no bias</p> <p><b>Not acceptable examples</b>  There would be more than 10 people who want to go to the Theme Park  I rounded my answer</p>	

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16 (a)	540	P1	for $\frac{120}{20} (=6)$ or $\frac{20}{120} (=0.16..)$ or $\frac{90}{20} (=4.5)$ or $\frac{20}{90} (=0.22..)$	Decimal values truncated or rounded to 2 dp or more
		P1	for $\frac{20}{120} = \frac{90}{n}$ or $\frac{20}{90} = \frac{120}{n}$ or $\frac{90 \times 120}{20}$ oe	
		A1	cao	
(b)	Explanation	C1	for explanation	
<b>Q4</b>			<p><b>Acceptable examples</b>            If marks fall off Shirley will have over-estimated the number of bees            There will be fewer bees            Her amount will go down</p> <p><b>Not acceptable examples</b>            My answer will be wrong            It will increase the answer</p>	



Paper: 1MA1/2H					
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4	(i)	238	P1 A1	for working with proportion eg $\frac{17}{50} \times 700$ oe cao	
	(ii)	statement	C1	for statement <b>Acceptable</b> Sample is representative (otherwise answer wrong) Random sample (otherwise answer will be different) The 50 people are from the 700 (otherwise not accurate) 17 out of <b>every</b> 50 want a sports bag (otherwise answer will be different / wrong) There is no bias That the other 650 will want the same gifts as the 50 <b>Not acceptable</b> There would be more than 17 people who want the sports bag I rounded my answer 17 out of 50 want a sports bag A repeat of the calculation done in (i) Most of the people would want a sports bag References as what might change in the future (eg a change in membership) That all 700 people wanted a type of gift rather than no gift (otherwise would have changed my answer)	
<b>Q6</b>					

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15 (a)	70	P1	for $\frac{20}{12}$ (= 1.66..) or $\frac{12}{20}$ (= 0.6) or $\frac{12}{42}$ (= 0.2857..) or $\frac{42}{12}$ (= 3.5)	Decimal values truncated or rounded to 2 dp or more
<b>Q7</b>	Explanation	P1	for $\frac{20}{n} = \frac{12}{42}$ or $\frac{12}{20} = \frac{42}{n}$ or $\frac{20 \times 42}{12}$	
		A1	cao	
		C1	for explanation <b>Acceptable examples</b> the sample size cannot be greater than the population the population is greater than the sample size there are more than 50 rabbits he catches 55 rabbits <b>Not acceptable examples</b> the sample size is too small some of the tags could fall off he has underestimated	

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14	1220	P1	for $\frac{45}{305}$ (= 0.147...) or $\frac{180}{45}$ (= 4) or $\frac{305}{45}$ (= 6.77...) or $\frac{45}{180}$ (= 0.25)	Decimal values truncated or rounded to 2 dp or more
Q8		P1	for $\frac{45}{305} = \frac{180}{n}$ or $\frac{45}{180} = \frac{305}{n}$ or $\frac{180 \times 305}{45}$	
		A1	cao	