1 (a)

	bus	train	plane	total
men	*12*	15	*53*	80
women	17	*28*	25	*70*
total	29	43	*78*	150

3	B3	for all 6 entries correct
	(B2	for 4 or 5 correct entries)
	(B1	for 2 or 3 correct entries)

(b) $\dfrac{15}{80}$

1	B1	oe e.g. $\dfrac{3}{16}$, 0.1875, 18.75%

Total 4 marks

---

2 (a)

Spinner B

		1	2	3	4
Spinner A	1	(2)	(3)	4	5
	2	(3)	4	5	6
	3	4	5	6	7

Correct values

2	B2	for all 9 correct values
	(B1	5 or 6 or 7 or 8 correct values)

(b)

2	M1	for $\dfrac{6}{m}$ where $m > 6$ or $\dfrac{n}{12}$ where $n < 12$

$\dfrac{6}{12}$

	A1ft	"$\dfrac{6}{12}$" oe ft their table.
		isw incorrect cancelling.

(c) $\dfrac{'3'}{12} \times 84$

2	M1	allow "a fraction" × 84
		fraction cannot be zero or improper

21

	A1	cao

Total 6 marks

3

	Europe	Africa	Asia	Total
Male	10	**3**	**16**	**29**
Female	**14**	6	11	31
	24	**9**	27	**60**

	B4	for all 12 correct values. If not B4 then award
		(B3 for 9 or 10 or 11 correct values)
		(B2 for 6 or 7 or 8 correct values)
		(B1 for 4 or 5 correct values)

Total 4 marks

---

4 (a)

	orange	blue	yellow	total
small	*6*	7	14	*27*
large	13	*16*	*4*	33
total	*19*	23	*18*	60

3	B3	All 6 entries correct
		B2 for 4 or 5 correct entries
		B1 for 2 or 3 correct entries

(b) $\dfrac{23}{60}$

1	B1	Allow 0.38(333...) or 38(.33...)%

(c) $\dfrac{13}{33}$

2	B2	
		B1 for $\dfrac{n}{33}$ where $n < 33$
		or $\dfrac{13}{m}$ where $m > 13$

Total 6 marks

---

5 (a)

	hockey	rugby	football	Total
year 10	12	42	24	78
year 11	27	16	29	72
Total	39	58	53	150

3	B3	for all 6 entries
		(B2 for 4 or 5 correct entries)
		(B1 for 2 or 3 correct entries)

(b) $\dfrac{78}{150} \times 100$ oe

2	M1	

Working not required, so correct answer scores full marks (unless from obvious incorrect working)

52

	A1	

Total 5 marks

---

6 (a)

	ramen	soba	udon	Total
Boiled	18	**5**	**8**	31
Fried	**10**	12	7	**29**
Total	**28**	**17**	15	60

Correct table

3	B3	All 6 correct entries
	(B2	4 or 5 correct entries
	B1	2 or 3 correct entries)

(b) $\dfrac{7}{60}$

1	B1	accept 0.11666... (accept 2 d.p. or
		better truncated or rounded)
		or 11.666...% (accept 2 s.f. or
		better truncated or rounded)

Total 4 marks

7	(a)	(table of scores)		2	B2	B2 for all scores completed correctly. B1 for 6, 7, 8 or 9 scores completed correctly
				1 1 2 3 4 5 6		
				6 5 4 3 2 1 0		
				7 6 5 4 3 2 1		
				8 7 6 5 4 3 2		
	(b)		$\frac{15}{18}$	1	B1ft	oe ($\frac{5}{6}$ or 0.83(33...) or 83.(33..)%) ft from complete table
	(c)		$\frac{9}{18}$	1	B1ft	oe Penalise incorrect notation once only ft from complete table
						Total 4 marks

8	(b)		$\frac{47}{100}$	1	B1	oe
	(c)		$\frac{49}{53}$	2	B2	oe accept 0.9245... or 92(.45...)%
					(B1	for $\frac{c}{53}$ where $c < 53$ **or** $\frac{49}{d}$ where $d > 49$)

9	(a)	(table)		2	B2	For all 10 entries correct in table (B1 for 6, 7, 8 or 9 correct entries)
		1 2 3				
		2 3 4 5				
		4 5 6 7				
		6 7 8 9				
		8 9 10 11				
		10 11 12 13				
	(b)(i)		$\frac{10}{15}$	1	B1ft	oe eg $\frac{2}{3}$ or 0.66, 0.67, 0.666, 0.667 etc
	(ii)		$\frac{8}{15}$	1	B1ft	0.53(333…) (SC B1(marks in (ii)) if both parts using "correct values" but incorrect probability notation eg 10 : 15, 8 : 15)
						Total 4 marks

10	(a)			3	B3	For all correct entries
			32 GB / 64 GB / 128 GB / Total			
		type A	75 / 37 / 83 / 195		(B2	for 4 or 5 correct entries)
		type B	52 / 29 / 24 / 105		(B1	for 2 or 3 correct entries)
		Total	127 / 66 / 107 / 300			
	(b)		$\frac{29}{300}$	1	B1	oe eg 0.096(666…)
	(c)		$\frac{83}{195}$	2	B2	oe eg 0.42(564…)
					(B1	for $\frac{83}{m}$ where $m > 83$ or $\frac{n}{195}$ where $n < 195$)
						Total 6 marks

11	(a)			3	B3	Fully correct table
			apple pie / fruit / ice cream / Total			If not B3, then B2 for 4 or 5 correct B1 for 2 or 3 correct
		Year 5	/ / 8 / 36			
		Year 6	34 / 8 / /			
		Total	/ 14 / 10 /			
	(b)	$\frac{22}{80}$		2	M1	
			$\frac{11}{40}$		A1	
						Total 5 marks

12	(a)			Road	Mountain	Hybrid	Total			3	B3	for all 6 entries correct
			Professional	26	*22*	*19*	67					B2 for 4 or 5 correct entries
			Amateur	*13*	32	*8*	*53*					B1 for 2 or 3 correct entries
			Total	39	54	*27*	120					
	(b)	$\frac{54}{120}\left(=\frac{9}{20}=0.45\right)$ oe or $\frac{54}{120}\times100$ oe								2	M1	
		Correct answer scores full marks (unless from obvious incorrect working)						45			A1 cao	
	(c)	$\frac{41}{120}\times360$ oe eg $0.34(166\ldots)\times360$ or 41×3 or $360\div\frac{120}{41}$ or $360\div2.9(268\ldots)$								2	M1	
		Correct answer scores full marks (unless from obvious incorrect working)						123			A1	
												Total 7 marks

13			Seoul	Tokyo	Total	correct table	3	B3 for all correct entries
		Business	51	35	86			(B2 for 6 or 7 or 8 correct entries)
		Economy	25	69	94			(B1 for 3 or 4 or 5 correct entries)
		Total	76	104	180			
	Correct answer scores full marks (unless from obvious incorrect working)							**Total 3 marks**