

Topic Test 1 Mark Scheme

Basic Probability - Foundation

Q	Answer	Mark	Comments
1	50 – 15 – 4 or 31 or $\frac{19}{50}$	M1	oe fraction, decimal or percentage
	$\frac{31}{50}$	A1	oe fraction, decimal or percentage
2	Number of 2p coins = 24	B1	48 coins in total
	their $24 \times 2 + 24 (\times 1)$	M1	
	72	A1ft	ft B0M1
3(a)	2 4 5 8 4 6 7 10 5 7 8 11 8 10 11 14	B2	B1 at least 8 correct entries
3(b)	No and full explanation eg There are 10 winning scores and only 6 losing scores There are more winning scores than losing scores $(\text{Prob} =) \frac{10}{16} > \frac{1}{2}$ (evens)	B2ft	ft their table from (a) B1 No and incomplete explanation eg There are 10 winning scores Kesha is looking at the spinner not the final scores or Full explanation with no or incorrect decision
4(a)	$1 - 0.25 - 0.35 - 0.3$	M1	
	0.1	A1	oe fraction, decimal or percentage
4(b)	$0.25 \times 70 = 17.5$ and you can't have half a blue counter or $0.35 \times 70 = 24.5$ and you can't have half a yellow counter	B1	oe eg 70 doesn't divide by 4 to give a whole number

Q	Answer	Mark	Comments							
5	6×6 or 36	M1	May be implied from a diagram eg sample space or as the denominator of a fractional answer							
	$4 + 3 + 2 + 2 + 1 + 1$ or 2, 3, 5, 7, 3, 5, 7, 5, 7, 5, 7, 7, 7 or 13	M1	May be shown by exactly 13 single-digit primes in a list, grid or table or as the numerator of a fractional answer							
	$\frac{13}{36}$	A1	oe fraction, decimal, percentage SC2 $\frac{15}{36}$ oe							
6(a)	21 men and 63 women	B1								
	15 men pass and 6 fail	B1ft	ft their 21 divided in ratio 5 : 2							
	42 women pass and 21 women fail	B1ft	ft their 63 divided in ratio 2 : 1 SC2 Any three correct values SC1 Any two correct values							
	Fully correct: <table style="margin-left: 100px; border: none;"> <tr> <td></td> <td>15</td> </tr> <tr> <td>21</td> <td>6</td> </tr> <tr> <td>(84)</td> <td>42</td> </tr> <tr> <td>63</td> <td>21</td> </tr> </table>		15	21	6	(84)	42	63	21	
	15									
21	6									
(84)	42									
63	21									
6(b)	$\frac{\text{their } 42}{84}$	M1								
	$\frac{1}{2}$	A1ft	ft $\frac{\text{their } 42}{84}$ cancelled down							