

This test is completely non-calculator

The following marks are awarded for each question.

B	Unconditional accuracy mark
M	Method mark – the correct method must be shown but there may be an arithmetic error; the sight of the value given in brackets implies the award of the method mark
A	Accuracy mark – unless the question specifies that working must be shown then the sight of the correct answer implies the award of full marks (unless the answer clearly comes from incorrect working)
C	Communication mark
P	Process mark to show correct process for problem solving. Any other process of a similar standard to achieve an accurate result is acceptable to achieve this mark
FT	Incorrect values may be followed through from one step to the next provided that the correct method is seen in each step and the only errors are arithmetic. This is shown in mark schemes by putting a number in inverted commas
OE	Or equivalent answer mark

Q	Answer	Mark	Comment
1a	Unlikely	B1	
1b	Even chance	B1	
1c	Certain	B1	
3a	$\frac{7}{15}$	B1	
3b	$\frac{8}{15}$	B1	
3c	1 or $\frac{15}{15}$	B1	
3d	0	B1	allow $\frac{0}{15}$ or 0% or 0.00
5	0.7	B1	
7a	0.1	M1	1 – (0.2 + 0.3 + 0.3 + 0.1)
		A1	
7b	0.4	M1	0.3 + 0.1 OE
		A1	

7c	60	M1	0.3×200
		A1	

9a	3	(5)	7	B2	B1 for five or six correct
	5	7	(9)		
	7	9	11		
9b	$\frac{3}{9}$ OE			B2	B1 for $\frac{3}{n}(n > 3)$ or $\frac{m}{9}(m < 9)$
9c	$\frac{7}{9}$			B2	B1 for $\frac{7}{n}(n > 7)$ or $\frac{m}{9}(m < 9)$
11a	$\frac{37}{80}$			B1	
11b	$\frac{23}{80}$			B1	
11c	$\frac{6}{42}$			B2	OE; B1 for $\frac{6}{n}(n > 6)$ or $\frac{n}{42}(n < 42)$

13a	$\frac{3}{8}, \frac{5}{8}, \frac{3}{8}, \frac{5}{8}, \frac{3}{8}$			B2	B1 for two correct probabilities in the correct place, one of which is $\frac{3}{8}$	
13b	$\frac{25}{64}$			M1	$\frac{5}{8} \times \frac{5}{8}$ FT	
				A1		
13c	$\frac{30}{64}$ OE			M1	$\frac{5}{8} \times \frac{3}{8}$ or $\frac{3}{8} \times \frac{5}{8} \left(= \frac{15}{64} \right)$ OE	
				M1		$\frac{5}{8} \times \frac{3}{8} + \frac{3}{8} \times \frac{5}{8} \left(= \frac{15}{64} + \frac{15}{64} \right)$ OE
				A1		

Question	Topic	Step	Mark
1a	Use a probability scale with words	3rd	1
1b	Use a probability scale with words	3rd	1
1c	Use a probability scale with words	3rd	1
3a	Understand and use the probability scale from 0 to 1	4th	1
3b	Understand and use the probability scale from 0 to 1	4th	1
3c	Understand and use the probability scale from 0 to 1	4th	1
3d	Understand and use the probability scale from 0 to 1	4th	1
5	Apply the property that the probabilities of an exhaustive set of outcomes sum to 1	4th	1
7a	Find a missing probability from a list or two-way table including algebraic terms	8th	2
7b	Find a missing probability from a list or two-way table including algebraic terms	8th	2
7c	Find a missing probability from a list or two-way table including algebraic terms	8th	2
9a	Use and draw sample space diagrams	6th	2
9b	Use and draw sample space diagrams	6th	2
9c	Use and draw sample space diagrams	6th	2

11a	Record outcomes of events in tables and grids	5th	1
11b	Record outcomes of events in tables and grids	5th	1
11c	Record outcomes of events in tables and grids	5th	2
13a	Decide whether two events are independent	8th	2
13b	Decide whether two events are independent	8th	2
13c	Decide whether two events are independent	8th	3

