

# Simple Probability and Estimation

## Mark Scheme 2

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Topic	Handling Data Statistics
Sub Topic	Simple Probability and estimation(Probability)
Booklet	Mark Scheme 2

**Time Allowed:** 33 minutes

**Score:** /27

**Percentage:** /100

**Grade Boundaries:**

A*	A	B	C	D	E	U
>85%	75%	70%	60%	55%	50%	<50%

Question	Working	Answer	Mark	Notes
1. (a) (i)	$0.08 + 0.25$		2	M1
		0.33		A1 oe e.g. accept 33/100 0.33/1
(a) (ii)	$1 - 0.08 - 0.1$ or $1 - (0.25 + 0.1 + 0.08) + 0.25$ or $0.57 + 0.25$ or $(1 - ("0.33" + 0.1)) + 0.25$		2	M1 ft if their answer to (a)(i) is $0 < (a)(i) < 1$
		0.82		A1 oe eg accept 82/100 ft for $0 < \text{answer} < 1$
(b)	$0.08 \times 0.25$		2	M1
		0.02		A1 oe eg accept 1/50
(c)	$\frac{20}{100} \times 60$ oe		2	M1
		12		A1 Accept 12 out of 60 <b>Note: M1A0 for 12/60</b>
				<b>Total 8 marks</b>

Q	Working	Answer	Mark	Notes
2.	$1 - 0.3$ oe or $0.7$ oe		3	M1 accept $100(\%) - 30(\%) = 70(\%)$
	"0.7" $\div 2$ oe			M1 dep accept $70(\%) \div 2$
		0.35		A1 for 0.35 or 35% or $\frac{35}{100}$ oe
				<b>Total 3 marks</b>

Question	Working	Answer	Marks	Comments
3.	$1 - \frac{2}{5}$ or $\frac{3}{5}$ oe		3	M1 or for $\frac{2}{5} \times 20$ oe or 8 or $\frac{8}{20}$
	$\frac{3}{5} \times 20$ oe			M1 (dep) for 20 - '8'
		12		A1 <b>NB: — gains M2, A0</b>
				<b>Total 3 marks</b>

4.	(a)	$1 - 0.44 - 0.42 - 0.04$ or $1 - 0.9$	0.1 oe	2	M1 A1 Accept — oe or 10 %
	(b)		0.86 oe	1	B1 Accept — or — oe or 86 %
	(c)	$1200 \times 0.04$	48	2	M1 A1 Accept 48 out of 1200 Note: M1A0 for 48/1200
					<b>Total 5 marks</b>

5.		$\frac{2}{5} \times 30$ or $0.4 \times 30$	12	2	M1 A1 (an answer of $\frac{12}{30}$ gains M1 only)
					<b>Total 2 marks</b>

Q	Working	Answer	Mark	Notes
6.	$\frac{35}{50} \times 300$ oe, eg $35 \times 6$ , $0.7 \times 300$ , etc	210	2	M1 A fully correct method  A1 cao (award $\frac{210}{300}$ M1 only)
				<b>Total 2 marks</b>

Q	Working	Answer	Mark	Notes
7.	(a)	$1 - (0.15 + 0.1 + 0.05 + 0.2 + 0.15)$	2	M1 A1 oe
	(b)	$0.15 + 0.05 + 0.2$	2	M1 A1 oe
				<b>Total 4 marks</b>