Qu 1	Scheme											Marks	AO
(a)	С	0	1	2	3	4	5	6	7	8		B1	1.2
	P(C = c)	$\frac{1}{9}$		B1ft	1.2								
				-	-	,	-	-	-	-		(2)	
(b)	$P(C < 4) = \frac{4}{2}$ (accept 0.444 or better)											B1	3.4
												(1)	
(c)	Probability lower than expected suggests model is not good											B1ft	3.5a
(-)												(1)	• • • •
(d)	e.g. Cloud cover will vary from month to month and place to place										BÍ	3.5c	
	So e.g. use a non-uniform distribution									(1)			
													s)
	Notes												
(a)	1 st B1 for a correct set of values for c. Allow $\left\{\frac{1}{8}, \frac{2}{8}, \dots, \frac{8}{8}\right\}$												
	2^{nd} B1ft for correct probs from their values for <i>c</i> , consistent with discrete uniform distrib'n												
	Maybe as a prob. function. Allow $P(X = x) = \frac{1}{6}$ for $0 \le x \le 8$ provided $x = \{0, 1, 2, \dots, 8\}$ is												8} is
	clearly defined somewhere.												
	j												
(b)	B1 for using correct model to get $\frac{4}{9}$ (o.e.)												
SC	Sample space {1,, 8} If scored B0B1 in (a) for this allow $P(C < 4) = \frac{3}{2}$ to score B1 in (b)												
(c)	B1ft for comment that states that the model proposed is or is not a good one based on												
(-)	their model in part (a) and their probability in (b)												
	(b) - 0.315 > 0.05 Allow e.g. "it is not suitable"; "it is not accurate" etc												
	$ (b) - 0.315 \leq 0.05$ Allow a comment that suggests it is suitable												
	No prob in (b) Allow a comparison that mentions 50% or 0.5 and rejects the model												
	No prob in (b) and no 50% or 0.5 or (b) > 1 scores B0												
	Ignore any comments about location or weather patterns.												
(4)	D1 for a co	maihla	nofin	mont	oonai	domina	Tromio	tionai	n m or	th or	location		
(u)	Lust saving "not uniform" is B0												
	Context & "non-uniform" Allow mention of different locations, months and non-uniform												
	or use more locations to form a new distribution with probabilities based on frequencies											encies	
	Context & "binomial" Allow mention of different locations, months and binomial												
	Just refined model Model must be outlined and discrete and non-uniform												
	e.g. higher probabilities for more cloud cover or lower probabilities for less cloud cover												l cover
	Continuous m	odel A	.ny m	odel tl	nat is l	based	on a c	ontinu	ious d	istribu	ition. e.g. n	ormal is B	0