

Question			Answer	Marks	AO	Guidance
12	(a)		Two correct, unequal probabilities: e.g. $P(2) = \frac{1}{36}$, $P(3) = \frac{2}{36}$	M1	2.4	Must be seen. Condone a correct statement e.g. “The probability of obtaining 2 is not the same as the probability of getting 3” – must refer to specific scores, need not compute probabilities (but if given these must be correct).
			Probabilities not equal (and hence not random).	A1	3.5b	A generalised conclusion must be present: <ul style="list-style-type: none"> Allow “probabilities are not the same” May come at the beginning e.g. “the chance of each student being chosen is not equal because...”
			Alternative using combinations: Demonstrate that there are more ways of obtaining one answer than another e.g. “there are more ways of obtaining 4 than 2” (Hence student C is more likely to be chosen than student A) and therefore the probabilities are not equal (and hence not random).	M1		Must be seen. Must refer to specific scores but need not compute the number of combinations/ways (but if given these must be correct).
				A1		A generalised conclusion must be present: <ul style="list-style-type: none"> Accept “student __ is more likely to be chosen than student __, therefore it is not random” Accept “some scores are more likely than others”
				[2]		
12	(b)	(i)	Throw repeatedly until one of these pairs is obtained	B1	3.5c	Any valid correction to the method, e.g.: <ul style="list-style-type: none"> “If obtain a pair not included, throw again.” “make the two dice distinguishable” (because 1,3 and 3,1 have different students) or “throw in order” Condone extending to the entire sample space (e.g. “assign a further 2 pairs to each student and the remaining 3 to ‘throw again’”) but the method must remain random.
				[1]		
12	(b)	(ii)	$\frac{1}{11}$	B1	3.4	Accept $\frac{1}{36}$
				[1]		