Question			Answer	Marks	AO	Guidance
11	(a)	(i)	$\frac{73+6a}{23+a}$ $\frac{73+6a}{23+a} = 3.4$ $a = 2$	M1* M1 dep* A1 [3]	3.1a 2.1 1.1	$\frac{\Sigma xf}{\Sigma f}$ attempted, must see a in numerator and denominator FT their $\frac{\Sigma xf}{\Sigma f}$ Condone Trial & Improvement only if correct answer reached.
11	(a)	(ii)	$\frac{\Sigma x^2 f}{\Sigma f} - 3.4^2$ attempted $(= 12.76 - 3.4^2 = 1.2)$ $\sqrt{'1.2'}$ = 1.10 (3 sf)	M1* M1 dep* A1 [3]	1.1 1.1 1.1	FT their a. Must see two values divided and not $\sum f = 6$. May be implied by previous M-mark and answer but must have some numerical evaluation for this mark (even if just inside the square root) Allow 1.1 or 1.095 SC **B1** for correct answer without working (max 1/3)
11	(b)		s larger than (a)(ii) because scores in table are (concentrated) towards the middle and (as the dice is fair) the scores will be spread **evenly** oe	B1 [1]	3.2a	Examples: • "s larger because scores will be spread **evenly"** B1 • "as the data will be more spread" B0 • "because there are equal chances a number will roll" B0 • "larger because there is an equal chance for each number, but for part a)ii) there was an area of the data with a higher probability" B0 Must have the idea of **even**/uniform spread (due to fair dice).