Question			Answer	Marks	AO	Guidance
18	**(a)**		260 **cao**	**B1**	**1.1**	
				[1]		
18	**(b)**		31 c**ao**	**B1**	**1.1**	mark the final answer
				[1]		
18	**(c)**		any 2 distinct reasons eg (approximately) symmetrical (about the mean) eg approximately bell-shaped / unimodal eg data is continuous	**B1** **B1**	**3.5a** **3.5a**	ignore extra comments unless they contradict an otherwise correct answer
				[2]		
18	**(d)**		[variance is] **awrt** 62.2 **or** [sd is**]** 7.89 seen **BC** 0.26287 – 0.263134 or 0.26	**M1** **A1**	**3.3** **3.4**	**NB** 62.15567…may be implied by sd = 7.88 or 7.89 **NB** 0.263047…from $\sqrt{62.2}$ or 0.263133… from 7.89 **NB** 0.262871… from 7.88, 0.262973…from unrounded sd allow **B2** for correct answer unsupported
				[2]		
18	**(e)**		B(28, p) used, where p is value calculated in **(d)** $0.888 \leq p < 0.896$	**M1** **A1**	**3.1a** **1.1**	 may be given to 2 sf; allow **B2** for correct answer unsupported
				[2]		

Question			Answer	Marks	AO	Guidance
18	**(f)**		$7.8 + 0.18 \times 260$	**M1**	**3.1a**	
			$0.18^2 \times 62.2$ **oe**	**M1**	**3.5c**	**or** $0.18 \times \sqrt{62.2}$
			N(54.6, 2.0138 – 2.02)	**A1**	**1.1**	allow eg 1.42^2 for variance
				[3]		