Question Number	Scheme	Marks
4(a)	Width = 3 [cm]	B1
	Area of 6.72 for a frequency of 16 so $\frac{6.72}{16}\times 40 = 16.8$ for a frequency of 40	M1
	$[h =]\frac{16.8}{3} = 5.6$ [cm]	A1
		(3)
(b)	$Q_2[= 45+]\frac{17}{50}\times 2$ or $Q_2[= 47-]\frac{33}{50}\times 2$ or $[45+]\frac{125-108}{158-108}\times(47-45)$ or $[47-]\frac{158-125}{158-108}\times(47-45)$	M1
	= awrt 45.7	A1
		(2)
(c)(i)	Mean = $\left[\frac{11225}{250} =\right] 44.9$	B1
(ii)	$\sqrt{\frac{507388}{250} - "44.9"^2}$ = awrt 3.68	M1 A1
		(3)
(d)	$\frac{16}{4} + 49 + \frac{40}{2}[= 73]$ or $\left(\frac{1}{2}\times 40 + 68\right) - \left(\frac{3}{4}\times 16 + 3\right)[= 73]$	M1
	$\frac{"73"}{250}\times\frac{"72"}{249}$	M1
	$\frac{876}{10375} = 0.0844...$	A1
		(3)
(e)(i)	No change	B1
(ii)	No change	B1
		(2)

	Notes		Total 13
(a)	**B1**	Cao	
	M1	for sight of 16.8 or fd = 4 or $w \times h = 16.8$ oe	
	A1	Cao	
(b)	**M1**	for $\frac{17}{50}\times 2$ or $\frac{33}{50}\times 2$ Allow use of 17.5 or 32.5	
	A1	awrt 45.7	
(c)(i)	**B1**	Cao	
(ii)	**M1**	a correct method to find the standard deviation (must include the square root)	
	A1	awrt 3.68	
(d)	**M1**	for a correct method to find the number of people. May be implied by 73	
	M1	Ft their 73	
	A1	oe Allow awrt 0.084	
(e)(i)	**B1**	Cao	
(ii)	**B1**	Cao	