Question Number	Scheme	Marks
6 (a)	$\left[\mathrm{P}\left(\bar{H}<55.08\right)=0.1151\right]\Rightarrow\dfrac{55.08-\mu}{\frac{6}{\sqrt{n}}}=-1.20$	M1
	$55.08+\dfrac{7.2}{\sqrt{n}}=\mu$	A1
	$\left[\mathrm{P}\left(\bar{H}>56.976\right)=0.0250\right]\Rightarrow\dfrac{56.976-\mu}{\frac{6}{\sqrt{n}}}=1.96$	M1
	$56.976-\dfrac{11.76}{\sqrt{n}}=\mu$	A1
	$55.08+\dfrac{7.2}{\sqrt{n}}=56.976-\dfrac{11.76}{\sqrt{n}}$	M1
	Either $\dfrac{18.96}{\sqrt{n}}=1.896$ or $\sqrt{n}=10$ leading to $n = 100$*	A1*
		(6)
(b)	$\mu=55.08+\dfrac{7.2}{'10'}=55.8$ or $\mu=56.976-\dfrac{11.76}{'10'}=55.8$	M1 A1
		(2)
	Notes	**Total 8**

(a)	**M1**	for standardising with μ and $\dfrac{6}{\sqrt{n}}$ and setting = to ± 1.2
	A1	for a correct equation
	M1	for standardising with μ and $\dfrac{6}{\sqrt{n}}$ and setting = to ± 1.96
	A1	for a correct equation
	M1	for solving simultaneously
	A1*	for a correct equation leading to the given answer
(b)	**M1**	substitution of n = their 10 into an equation to find μ
	A1	Cao