Question Number	Scheme	Marks
4 (a)	$X \sim N(170,16^2)$	
	$P(X>190)=P\left(Z>\frac{190-170}{16}\right)\left[=P(Z>1.25)\right]$	M1
	$\left[=1-0.8944\right]=0.1056$ awrt 0.106	A1
		(2)
(b)	$P(X>d)=0.9$	
	$\frac{d-170}{16}=-1.2816$ or $\frac{170-d}{16}=1.2816$ (Calc value $\pm 1.28155\ldots$)	M1 A1
	$d=149.494...$ awrt 149	dA1
		(3)
	Notes	**Total 5**

		NB correct answers with no working scores no marks
(a)	**M1**	For standardising using 190, 170 and 16 (May be implied by 1.25)
	A1	awrt 0.106 Do not ISW
(b)	**M1**	For standardising and setting = z value, where $1 < \|z\| < 2$
	A1	A fully correct standardisation = a correct compatible z value to 4 dp or better.
	dA1	Dependent on previous A1 149.5 or awrt 149