Question Number	Scheme	Marks
6(a)	$\mathrm{P}(W > 3500) = \mathrm{P}\left(Z > \dfrac{3500-3200}{200}\right)\left[= \mathrm{P}(Z > 1.5)\right]$	M1
	0.0668 (Calc 0.066807…) awrt 0.0668	A1
		(2)
(b)	$\mathrm{P}(W > 3600) = \mathrm{P}\left(Z > \dfrac{3600-3200}{200}\right)\left[= \mathrm{P}(Z > 2)\right]$	M1
	0.0228 (Calc 0.02275…)	A1
	$\dfrac{"0.0228"}{"0.0668"}$	M1
	0.3413… awrt 0.341	A1
		(4)
(c)	$0.756 \times "0.0668"\left[= 0.0505\right]$	M1
	$\dfrac{w-3200}{200} = 1.64$	M1B1
	3528	A1
		(4)

	Notes		Total 10
(a)	**M1**	for standardising using 3500, 3200 and 200 May be implied by ± 1.5	
	A1	awrt 0.0668	
(b)	**M1**	for standardising using 3600, 3200 and 200 May be implied by ± 2	
	A1	awrt 0.0228 May be implied by 1 – 0.9772 if used in a ratio of probabilities	
	M1	for a correct ratio of probabilities ft their 0.0228 and their 0.0668 provided it results in a probability	
	A1	awrt 0.341 Allow $\frac{57}{167}$	
(c)	**M1**	ft their 0.0668 May be implied by 0.0505	
	M1	for standardising (allow any letter) and set = to z value $1.6 < \lvert z \rvert < 1.68$	
	B1	for awrt 1.64 seen	
	A1	For 3528 or 3530 **only**	