11	**(a)**		(mean =) 201 (3 sf) (sd =) 60.7 (3 sf)	**B1** **B1** **[2]**	**1.1** **1.1**	 Allow 60.8
11	**(b)**		0.364 (3 sf)	**B1** **[1]**	**3.4**	
11	**(c)**		P(X < 160) = 0.252(49) $x_1 = \Phi^{-1}(0.6 + \text{'0.25249'})$ = 262.83 (5 sf) ISW	**B1** **M1** **A1** **[3]**	**3.4** **1.1** **1.1**	soi, eg by P(X > 160) = 0.748 or 0.747 or by 0.147 or 0.148 T&I: correct answer scores B1M1A1, otherwise max B1 SC Answer 263 with correct working: B1M1A0 SC Answer 263 with inadequate working: B1 only
11	**(d)**		112 and 288 are within 2 sd from mean (no working needed) P(X < 112) = 0.0708, which is > 0.025 or > 0.0013 or > 0	 **B1** **[1]**	 **3.5a**	or $\mu + 2\sigma = 320$ ($\mu + 3\sigma = 380$) which is > than 288 or P(112< M < 288) = 0.858 which is < than 0.95 (or 0.99) or p = 0.858, but model suggests p = 1 NOT 0.858 alone B0
11	**(e)**		Reduce σ $288 - 200 = 2\sigma$ or $288 - 200 = 3\sigma$ or $288 - 112 = 4\sigma$ or $288 - 112 = 6\sigma$ $\sigma = 44$ $\sigma = 29.3$ or about 30	**B1** **B1** **[2]**	**3.5c** **3.3**	May be implied by value of σ Allow more precise correct methods Allow σ between 25 and 50. No working needed B1B1 or σ^2 between 625 and 2500