Question Number	Answer		Mark
11(a)	Use of $\rho = \frac{m}{V}$	**(1)**	**3**
	Use of $\Delta E = mc\Delta\theta$	**(1)**	
	$\Delta E = 1.3 \times 10^{11}$ J	**(1)**	
	[For MP2, must have a temperature difference. Allow a temperature difference with 273 added].		
	Example of calculation $m = 998\ \text{kg m}^3 \times 2750\ \text{m}^3 = 2.74 \times 10^6\ \text{kg}$ $\Delta E = 2.74 \times 10^6\ \text{kg} \times 4190\ \text{J kg}^{-1} \times (28.0 - 16.5)\ ^{\circ}\text{C} = 1.32 \times 10^{11}\ \text{J}$		
11(b)	Energy is transferred (from the water) to the surroundings **Or** Not all of the energy from the heater is used to raise the water temperature	**(1)**	**1**
	[Do not accept vague statements such as "energy is lost" Allow "energy is lost to surroundings" Allow "heat" for "energy"]		
	Total for question 11		**4**