The weekly salaries of employees at two large electronics companies, A and B, are being compared. The weekly salaries of an employee from company A and an employee from company B are denoted by $\$x$ and $\$y$ respectively. A random sample of 50 employees from company A and a random sample of 40 employees from company B give the following summarised data.

$$\Sigma x = 5120 \qquad \Sigma x^2 = 531\,000 \qquad \Sigma y = 3760 \qquad \Sigma y^2 = 375\,135$$

(i) The population mean salaries of employees from companies A and B are denoted by $\$\mu_A$ and $\$\mu_B$ respectively. Using a 5% significance level, test the null hypothesis $\mu_A = \mu_B$ against the alternative hypothesis $\mu_A \neq \mu_B$. [8]

(ii) State, with a reason, whether any assumptions about the distributions of employees' salaries are needed for the test in part **(i)**. [1]