A scientist is investigating the masses of a particular type of fish found in lakes $A$ and $B$. He chooses a random sample of 10 fish of this type from lake $A$ and records their masses, $x$ kg, as follows.

| 2.1 | 1.8 | 0.9 | 3.0 | 2.4 | 2.6 | 1.8 | 2.2 | 1.9 | 2.5 |

The scientist also chooses a random sample of 12 fish of this type from lake $B$, but he only has a summary of their masses, $y$ kg, as follows.

$$\sum y = 24.48 \qquad \sum y^2 = 53.75$$

Test at the 10% significance level whether the mean mass of fish of this type in lake $A$ is greater than the mean mass of fish of this type in lake $B$. You should state any assumptions that you need to make for the test to be valid. [10]