The number, $x$, of beech trees was counted in each of 50 randomly chosen regions of equal size in beech forests in country $A$. The number, $y$, of beech trees was counted in each of 40 randomly chosen regions of the same equal size in beech forests in country $B$. The results are summarised as follows.

$$\Sigma x = 1416 \qquad \Sigma x^2 = 41\,100 \qquad \Sigma y = 888 \qquad \Sigma y^2 = 20\,140$$

Find a 95% confidence interval for the difference between the mean number of beech trees in regions of this size in country $A$ and in country $B$. [9]