

The number,  $x$ , of pine trees was counted in each of 40 randomly chosen regions of equal size in country  $A$ . The number,  $y$ , of pine trees was counted in each of 60 randomly chosen regions of the same equal size in country  $B$ . The results are summarised as follows.

$$\Sigma x = 752 \quad \Sigma x^2 = 14\,320 \quad \Sigma y = 1548 \quad \Sigma y^2 = 40\,200$$

Find a 95% confidence interval for the difference between the mean number of pine trees in regions of this size in countries  $A$  and  $B$ . [7]