(c) The photograph shows two Himalayan goats.

The fur colour of a goat depends on its genotype.

Gene B controls fur colour in these goats.

The allele for brown fur is dominant to the allele for white fur in goats.

The allele **B** codes for brown fur and the allele **b** codes for white fur.

In one population, there were 470 brown goats and 140 white goats.

Calculate the frequency of the allele **B** in this population, using the equation

$$p^2 + 2pq + q^2 = 1$$

Give your answer to **two** decimal places.

(3)

Answer ....

(Total for Question 6 = 9 marks)