5. The heights of men in a tennis club are normally distributed with a mean of 183 cm and a standard deviation of 4.9 cm.

A man from the tennis club is selected at random.

(a) Find the probability that the man's height is

(i) more than 186 cm,

(ii) between 175 cm and 185 cm.

(2)

The heights of women in the tennis club are normally distributed with a mean of μ cm and a standard deviation of σ cm.

Given that 40% of the women are shorter than 170 cm and 15% are taller than 175 cm,

(b) find the value of μ and the value of σ
Show your working clearly.

(5)

A man from the tennis club and a woman from the tennis club are selected at random.

(c) Find the probability that both players have heights between 170 cm and 175 cm.

(3)