5. The weights, x grams, of 300 medium-sized apples are summarised in the table below.

Weight	Frequency
$105 \leqslant x < 115$	28
$115 \leqslant x < 125$	42
$125 \leqslant x < 130$	75
$130 \leqslant x < 140$	63
$140 \leqslant x < 150$	52
$150 \leqslant x < 170$	40

A histogram is drawn (not shown) to represent these data.

The bar that represents the class $125 \leqslant x < 130$ is 1.8 cm wide and 12 cm high.

(a) Calculate the width and the height of the bar that represents the class $150 \leqslant x < 170$

(3)

(b) Use linear interpolation to estimate the median of x
Give your answer to one decimal place.

(2)

The weights, w grams, of 300 large apples are coded using $y = \dfrac{w - 200}{2}$

These coded data are summarised by

$$\sum y = 6000 \qquad \sum y^2 = 150\,000$$

(c) Calculate

(i) the mean of w

(2)

(ii) the variance of w

(3)

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Question 5 continued

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Question 5 continued

(Total for Question 5 is 10 marks)