

1. The number of hours of sunshine each day, y , for the month of July at Heathrow are summarised in the table below.

Hours	$0 \leq y < 5$	$5 \leq y < 8$	$8 \leq y < 11$	$11 \leq y < 12$	$12 \leq y < 14$
Frequency	12	6	8	3	2

A histogram was drawn to represent these data. The $8 \leq y < 11$ group was represented by a bar of width 1.5 cm and height 8 cm.

- (a) Find the width and the height of the $0 \leq y < 5$ group.

(3)

- (b) Use your calculator to estimate the mean and the standard deviation of the number of hours of sunshine each day, for the month of July at Heathrow.

Give your answers to 3 significant figures.

(3)

The mean and standard deviation for the number of hours of daily sunshine for the same month in Hurn are 5.98 hours and 4.12 hours respectively.

Thomas believes that the further south you are the more consistent should be the number of hours of daily sunshine.

- (c) State, giving a reason, whether or not the calculations in part (b) support Thomas' belief.

(2)