2. Runners in an athletics club can train with either coach *A* or coach *B* for the 400 m race.

Coach *A* trains 120 runners for the 400 m and records the best time, x seconds, for each runner.

The results are summarised by the following statistics

$$\sum x = 6612 \qquad \sum x^2 = 364902$$

(a) Calculate the mean of the best times for the runners trained by coach *A*

(1)

(b) Calculate the standard deviation of the best times for the runners trained by coach *A*

(2)

The mean and standard deviation for the best times of the 100 runners trained for the 400 m by coach *B* are 55.1 seconds and 3.6 seconds respectively.

A 400 m race consists of equal numbers of the fastest runners trained by coach *A* and by coach *B*

(c) State, giving a reason, which coach is more likely to have trained the winner.

(2)