Exercise 4A:

1. SD = 13.5, Var = 182.55
2. 4 and 6
3.
   (a) 121.68
   (b) Mean = 2.29, SD = 1.56
   (c) Standard deviation is in the correct units (ie. Number of goals)
   (d) Original team because lower standard deviation
4.
   (a) Mean = 12.84, SD = 1.89
   (b) Mean = 10.96, SD = 7.62
   (c) Team B are quicker on average but are less consistent. One limitation is that the sample size for Team B is very small.
5.
   (a) 8.56 kg
   (b) 7.04 kg

Exercise 4**B**:

1.

(a) 6.5

(b) 7

2.

(a) Frequency = 60, 30, 20, 15, 12

(b) 4

(c) 2

(d) 3

3.

(a) 1 student, because the sum of the frequencies is 153.

(b) 39.9

(c) 21.9

(d) 4.26

(e) 64.7

Exercise 4C:

1.

(a) Mean = 230, SD = 165.4

(b) $y = x + 30$

(c) Mean = 260, SD = 165.4

2.

(a) Mean = 22.3, SD = 4.14

(b) 24.1

Mixed Exercise:

1.
   (a) Mean = 20.4°C, SD = 2.26°C
   (b) Mean = 19.1°C, SD = 1.61°C
   (c) The temperature in Leuchars is generally lower and less changeable (more consistent) than the temperature in Leeming.
2. Mean = 0.5, SD = 0.17
3.
   (a) Mean = 9.85 minutes, SD = 5.36 minutes, Variance = 28.78
   (b) 9.15 minutes
   (c) Mean = 571 seconds, SD = 321.6 seconds
4.
   (a) Mean = 41.0, SD = 9.56
   (b) 10.21
   (c)
      i. 19.09
      ii. Interquartile range