

**Solutions - Exercise 4**

- 1      mean = 4.64 to 2 d.p.                      standard deviation = 3.65 to 2 d.p.  
         mode = 1                                      range = 12
- 2      mean = 10.25 to 2 d.p.                      st. dev. = 3.11  
         mode = 12.5                                      range = 10
- 3      mean = 66.29
- 4      corrected mean = 39.7
- 5      (a)    false, average = 48  
         (b)    false, not in the presence of extreme values
- 6      mean = 36    standard deviation = 18.138  
         mode = 21    range = 60
- 7      mean = 368.8                                      mode = 325
- 8      mean = \$ 83 000                                  range = \$ 40 000
- 9      mean = 77.2    standard deviation = 4.29
- 10     var. = 1.08 to 2 d.p.                      range = 3
- 11     mean = 10.68 to 2 d.p.                      standard deviation = 2.298 to 3 d.p.
- 12     mean = 9    standard deviation = 1.6073
- 13     mean = 0.85    standard  
         deviation = 1.21 to 2 d.p. mode = 0      range = 5
- 14     mean = 1.75    standard deviation = 1.09 to 2 d.p.
- 15     mean = 13.83 to 2 d.p.                      standard deviation = 4.91313
- 16     All numbers in the data set are 95.
- 17     Set Z has the largest standard deviation and set X has the smallest.
- 18     No change to standard deviation or variance.
- 19     mean = 8.964                      st dev = 0.10346                      var = 0.01
- 20     mean = 3.22      var = 1.30 to 2 d.p.