

Measures of Variation Solutions

1.
 - i. 59
 - ii. 72
 - iii. 13
 - iv. Skewed Left

Stem	Leaf
0	7,7,7,8,9,9,9,9
1	0,1,1,1,1,1,2,3,3,3,4
1	6

2.
 - i.
 - ii. Skewed right
 - iii. 9
 - iv. 11
 - v. 3.5
3.
 - (a)
 - i. 29.165
29.025
 - ii. 20.77
 - iii. 34.82
 - iv. 14.05
 - v. 6.2
 - (b)
 - i. 0.14
 - ii. Distribution does not contain outliers.
4.
 - i. Neither. $Q_x = 2.83$ $Q_y = 2.83$
 - ii. Neither. $Q_x = 1.12$ $Q_y = 1.12$
 - iii. Neither. $Q_x = 2.74$ $Q_y = 2.74$
5. Mean = 150,711 (€m) Standard Deviation = 11,763.67 (€m)
 - i. 2007
 - ii. 2009
 - iii. Yes
6.
 - i. 32 years

Regular Coke			
Weight (g)	360-365	365-370	370-375
Frequency	2	5	3

Diet Coke			
Weight (g)	345-350	350-355	355-360
Frequency	1	8	1

- ii. 18 years
- 7. i.
- ii. Regular Coke
- iii. $Q_{RegularCoke} = 3.5$, $Q_{DietCoke} = 2.24$
- 8. No solution given
- 9. No solution given
- 10. i. 2.37 , 4.86
- 11. No solution Given
- 12. i. 13.4 ; 0.6 (mean + 1 year, spread of ages shows no change)
- ii. 12.9
- iii. > 0.6 because data are more spread out
- 13. i. 18
- ii. 6.4
- iii. 11.6 , 24.4
- iv. 5
- v. 83.3%
- vi. 20
- vii. 6.4
- 14. i. No solution given
- ii. 6.4 , 8.8
- iii. Men = (8.6 , 21.4) , Women = (13.2 , 30.8)
- iv. No solution given
- 15. i. (a) 34
- (b) 65
- ii. 17
- iii. 17