

## ECON1310 TUTORIAL 2

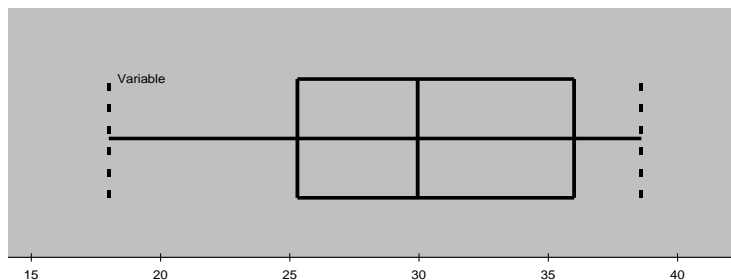
### BRIEF ANSWERS

- Q1.** a) (i) True (ii) False (iii) False (iv) False  
b) (i) False (ii) True (iii) True  
c) (i) False (ii) Possibly T but could be F if more than two modes.

**Q2.** *Since the data are categorical, ordinal, ie qualitative in nature ('awful' to 'excellent'), the mean is NOT appropriate. The mode or median would be better.*

*Mode = 9 or the median = 8 (since the categories are ordered.)*

- Q3.** 18.0, 25.3, 29.95, 36, 38.6



Would describe data as **left skewed**.

Mean = \$29,571.40

**Does it matter** here whether you are using units of \$thous or dollars? *No, it does not matter here, as long as the units used are stated in your written answer. However, in a **CML quiz question**, it does matter that the correct numerical value is entered, and this value WILL depend on the units asked for in the CML question.*

**Left whisker length:**  $Q_1 - \min = 25.3 - 18 = 7.3$

**Right whisker length:**  $\text{Max} - Q_3 = 38.6 - 36 = 2.6$

**Discuss:** the right whisker is much shorter, so the distribution is **left skewed**

**Absolute difference** between mean and median =

$$|\text{mean} - \text{median}| = |29.57 - 29.95| = |-0.38| = \mathbf{0.38} = |\text{median} - \text{mean}|$$

- Q4.** a) \$11 per bottle  
b) i) 36.73% ii) 64.00% iii) 38.99% iv) 66.26