

# M246 TMA 01 Part I

1) a) i)

```
v1=(702,740,816,822,850,870,888,894,899,1043,1133,1204)
ffs(v1)
v1: 702 / 817.5 / 879 / 1007 / 1204
mean(v1)
```

Lower adjacent value is the smallest member of the set within one interquartile range,  $iqr = q_u - q_l$  of the lower quartile.

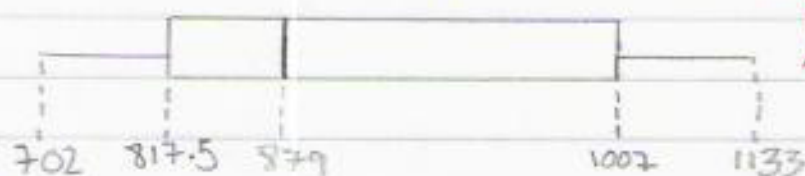
$$\begin{aligned}\text{Lower adjacent value} &= q_L - iqr \\ &= 817.5 - (1007 - 817.5) \\ &= 817.5 - 189.5 \\ &= 628\end{aligned}$$

Hence the lower adjacent value is 702. The upper adjacent value is the largest member of the set within one interquartile range of the upper quartile.

$$\text{Upper adjacent value} = 1007 + 189.5 = 1196.5$$

Hence upper adjacent value is 1133.

$\frac{2}{4}$



You must indicate the 1204 as an outlier

Comm on shape - slight right skew

$$\text{example mean} = \frac{(702 + 740 + 816 + 822 + 850 + 870 + 888 + 894 + 899 + 1043 + 1133 + 1204)}{12}$$

$\frac{2}{2}$

$$= 905.1$$

$$\text{standard deviation } s_{n-1} = 150.3$$

(another example of standard deviation on the same set = 143.9)

$$\text{b) sample mean of MT} = \frac{(94 + 197 + 1638 + 99 + 141 + 23)}{7} = 368.6$$