Midterm 1: Chapters 1 to 4

1	2	3	4	5	6	7	8	9	10
22.43	10.25	23.71	21.77	22.11	18.71	19.77	20.33	20.17	21.12

(a) $\bar{x} = \frac{\Sigma_{i=1}^{10} x_i}{10} = 20.037$. $\tilde{x} = \frac{20.33+21.12}{2} = 20.725$

(b) $s_x^2 = \frac{\Sigma(x_i - \bar{x})^2}{n-1} = 13.935$. Split into 4 sections, numbers seperating are quartiles. Last minus first is IQR $= 22.11 - 19.77 = 2.34$

(c) Trimmed mean of 10%: remove 10% from highest and lowest. $= 20.801$. Close to median but more than mean; data is slightly skewed to the left.

(d) Set decimal point to |.

(e) Away from Q1 and Q3 by 1.5·IQR are outliers. Left dot is minimum, start of box is Q1, middle line is median, end of box is Q3, last dot is maximum.