

$$(a) \text{ mean: } \frac{1}{10} \sum_{i=1}^{10} x_i = \frac{1}{10} (21.7 + \dots + 21.0) = 22.46$$

$$\text{variance: } \frac{1}{10} \sum_{i=1}^{10} (x_i - 22.46)^2 = \frac{1}{10} [(21.7 - 22.46)^2 + \dots + (21.0 - 22.46)^2] = 2.19$$

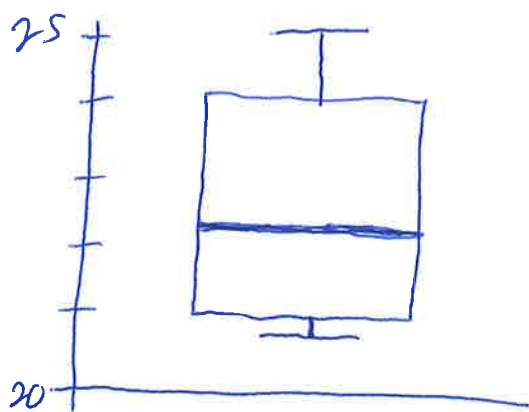
$$sd = \sqrt{\text{Var}} = 1.48$$

$$\text{max} = 24.8, \text{min} = 20.8, \text{Range} = 24.8 - 20.8 = 4$$

$$\text{SORTED: } 20.8, 20.9, 21.0, 21.7, 22.0, 22.3, 22.7, 24.1, 24.3, 24.8$$

$$Q_2 = \frac{22 + 22.3}{2} = 22.15$$

$$Q_1 = 21, Q_3 = 24.1, \text{IQR} = 24.1 - 21 = 3.1$$



$$Q_1 - 1.5\text{IQR} = 16.35 \rightarrow \text{WHISKER AT } 20.8$$

$$Q_3 + 1.5\text{IQR} = 28.75 \rightarrow \text{WHISKER AT } 24.8$$

NO OUTLIERS.

$$(b) \text{ mean} = \frac{9}{5} \cdot 22.46 + 32 = 72.43$$

$$\text{Var} = \left(\frac{9}{5}\right)^2 \cdot 2.19 = 7.10$$

$$sd = \left|\frac{9}{5}\right| \cdot 1.48 = 2.66$$

(C) SORTED: 13, 14, 14, 15, 15, 15, 15, 16, 16, 20

	FREQ.	REL. FREQ.	CUM. FREQ.
13	1	0.1	0.1
14	2	0.2	0.3
15	4	0.4	0.7
16	2	0.2	0.9
20	1	0.1	1.0

