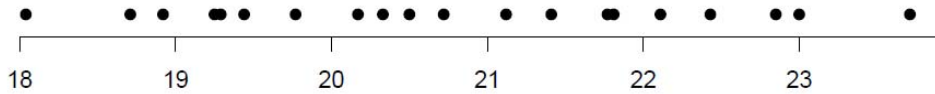


# Stat 451 Homework #1

1.2 (a) Mean=20.768 and Median=20.610.

(b)  $\bar{x}_{tr10} = 20.743$ .

(c) A dot plot is shown below.



$$1.8 \quad s^2 = \frac{1}{20-1}[(18.71 - 20.768)^2 + (21.41 - 20.768)^2 + \cdots + (21.12 - 20.768)^2] = 2.5345;$$

$$s = \sqrt{2.5345} = 1.592.$$

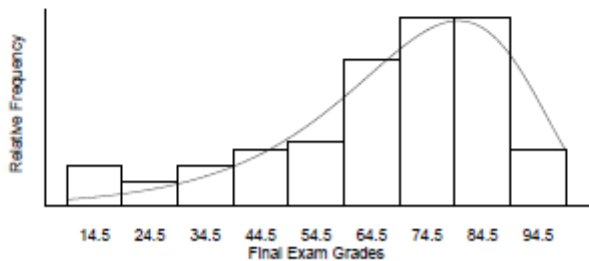
1.18 (a) A stem-and-leaf plot is shown below.

Stem	Leaf	Frequency
1	057	3
2	35	2
3	246	3
4	1138	4
5	22457	5
6	00123445779	11
7	01244456678899	14
8	00011223445589	14
9	0258	4

(b) The following is the relative frequency distribution table.

Relative Frequency Distribution of Grades			
Class Interval	Class Midpoint	Frequency, $f$	Relative Frequency
10 – 19	14.5	3	0.05
20 – 29	24.5	2	0.03
30 – 39	34.5	3	0.05
40 – 49	44.5	4	0.07
50 – 59	54.5	5	0.08
60 – 69	64.5	11	0.18
70 – 79	74.5	14	0.23
80 – 89	84.5	14	0.23
90 – 99	94.5	4	0.07

(c) A histogram plot is given below.



The distribution skews to the left.

(d)  $\bar{X} = 65.48$ ,  $\bar{X} = 71.50$  and  $s = 21.13$ .