

Instructions: Show all work. State any formulas used. If you use the calculator, you should say which function you used, and what you entered into it, as well as any output. I can only give partial credit for incorrect answers if I have something to grade.

1. Use the data below to create a stemplot. Be sure to give an appropriate key. What is the approximate shape of the graph?

94	97	188	292	311	399	411	466	473	481
515	548	555	589	618	663	672	745	752	
774	829	850	854	887	997	1170			

0 94 97
1 88
2 92
3 11 99
4 11 66 73 81
5 15 48 55 89
6 18 63 72
7 45 52 64 74
8 29 50 54 87
9 97
10
11 70

Key
 $4 | 71 = 471$

roughly symmetric
 more data needed to see
 if the distribution is
 truly bimodal

2. Use the same data to draw a boxplot. State the five-number summary and indicate if any of the values are outliers.

1 Var Stats

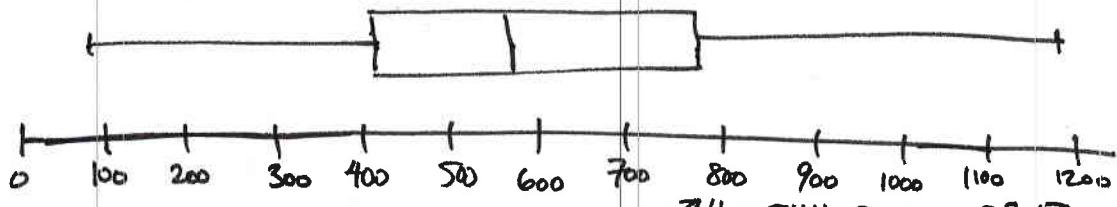
min: 94

$Q_1: 411$

Med: 589

$Q_3: 774$

Max: 1170



$$774 - 411 = 363 = \text{IQR}$$

$$1.5 \text{ IQR} = 544.5$$

$$774 - 544.5 = 233.5$$

$$774 + 544.5 = 1318.5$$

no outliers

3. What is the mean and the standard deviation of the data?

1 Var Stats

$$\bar{x} = 592.4$$

$$s = 266.54$$