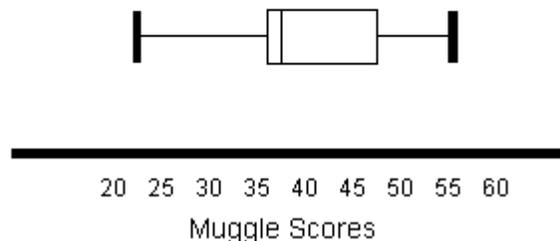
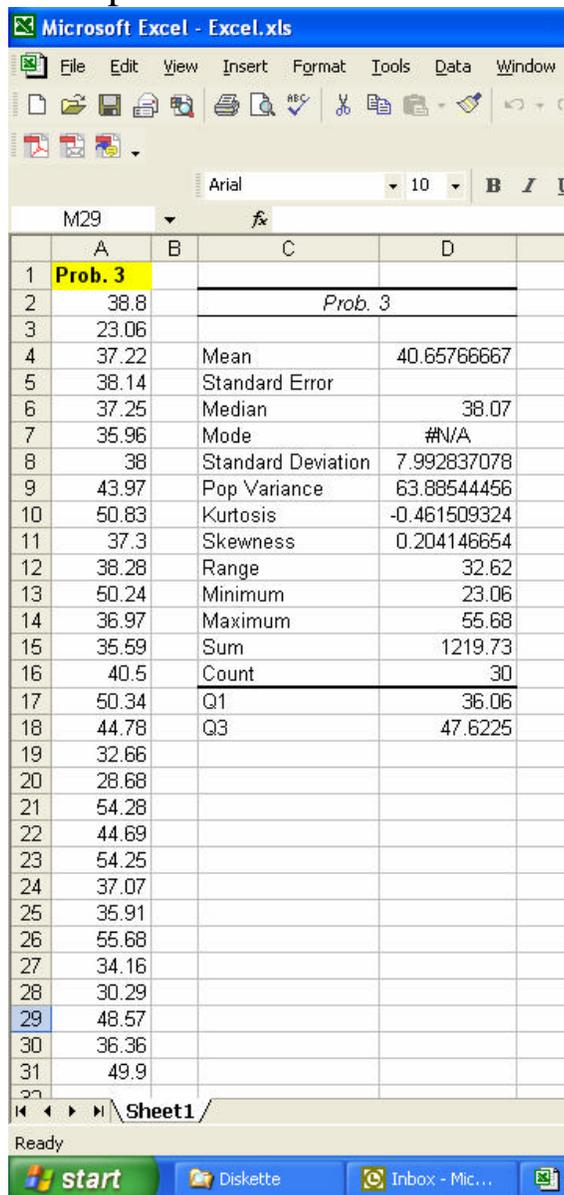


Example Question

3. The following data represents the muggle scores of the patients in muggle units (which we all know are on a ratio scale) and represent the entire population. Thoroughly describe that data. Please show all work and round to four decimal places (unless your computer program rounds to less) (Best to use a computer program.) Note: This is a statistics course not an English course. By describe, we do not mean to describe it in words but rather by using the statistical techniques you have studied so far. Please see “Review of Descriptive Statistics” Week05 pages 48 to 49.

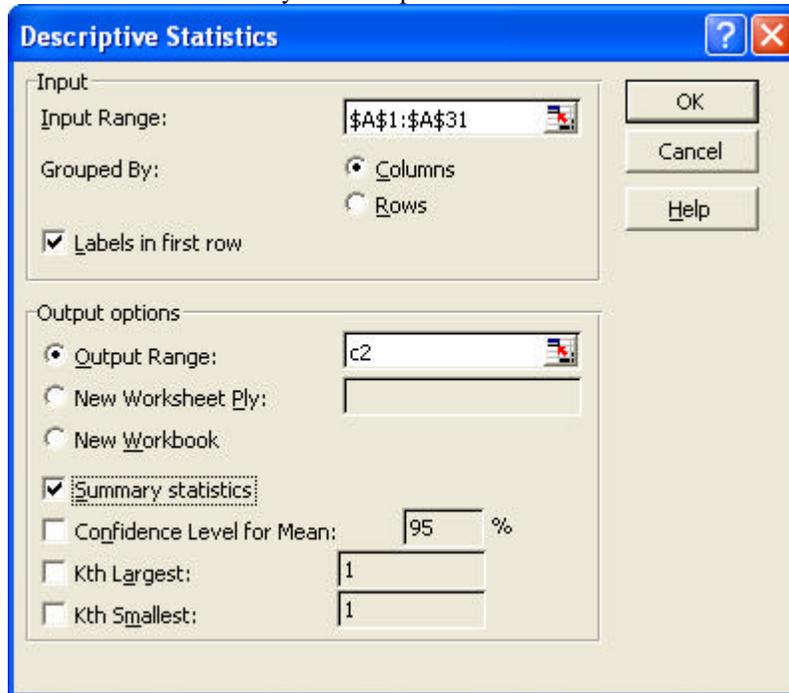
38.80	35.96	38.28	50.34	44.69	34.16
23.06	38.00	50.24	44.78	54.25	30.29
37.22	43.97	36.97	32.66	37.07	48.57
38.14	50.83	35.59	28.68	35.91	36.36
37.25	37.30	40.50	54.28	55.68	49.90

Example Answer:



Example Explanation

- Read Appendix C pages 29 to 36, watch XL4 on the CD, study the box whiskers plot in Week02 pages 57 and 58, and read Week05 pages 43 to 49.
- In Excel, enter the problem number in Cell A1
- Enter the data in Cells A2 down until all the numbers are listed in the column.
- Click on Tools/Data Analysis/Descriptive Statistics/OK.



- Click in the Input Range, then highlight your data and the problem number.
- Click “Labels in first row” but only if you highlighted a number.
- Click in the circle next to “Output Range:” then click in the rectangle to its right.
- Type “**C2**”
- Click on the box to the left of “Summary statistics”
- Press Ok
- Click on “Format/column/Autofit Selection
- The answers given would be correct if our data had come from a sample, but it did not. So, we need to change a few things.
 - Delete the number next to “Standard Error”
 - Change the standard deviation by clicking in the cell with the wrong answer and typing in **=STDEVP(A2:A31)** except you should replace the A31 with the cell that contains your last data point.
 - Change the label “Sample Variance” to **Pop Variance**
 - Change the variance by clicking in the cell with the wrong answer and typing in **=VARP(A2:A31)** except you should replace the A31 with the cell that contains your last data point.
- Underneath “Count” type **Q1** then type **Q3** below that.
- In the cell to the right of Q1 type **=QUANTILE(A2:A31,1)** except you should replace the A31 with the cell that contains your last data point.
- In the cell to the right of Q1 type **=QUANTILE(A2:A31,3)** except you should replace the A31 with the cell that contains your last data point.
- For the box-whiskers plot, you need five numbers: Minimum, Q1, Median, Q3, and Maximum. Draw the box-whiskers plot by hand, don’t try to create it on the computer.