Math 206 - Quiz 5
March 12, 2014

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Several years ago, Sally invested some of her money in the stock market. She bought several hundred shares of Mobile Mini (MINI). The following table shows the values of Mobile Mini shares at 3-month intervals after her initial purchase.

Month	0	3	6	9	12	15	18
Value	\$18.29	\$19.10	\$24.86	\$35.57	\$32.21	\$38.80	\$38.32

What type of graph should be used to best display this data? Why? On a separate sheet of graph paper, sketch the corresponding graph. → See next page

These data represent values at different points in time. Time series data are best displayed with a line graph.

2. (1 point) Find the mean and standard deviation of the values in the table above.

From the calculator...

$\bar{x} = 29.59$

$s = 8.14$

3. (2 points) Find the median, the quartiles, and the interquartile range of the following data. Sketch the boxplot. Also compute the outlier cutoff values.

~~10, 18, 12, 20, 24, 21, 18, 19, 10, 14, 17, 20, 21, 23, 14~~

Lower half: 10, 10, 12, 14, 14, 17, 18 — Upper half: 18, 19, 20, 20, 21, 21, 23, 24

$Q_1 = 14$ $Q_2 = \text{Med} = 18$ $Q_3 = 21$

$IQR = 21 - 14 = \boxed{7}$

$1.5 \times IQR = 10.5$

Cutoffs:

$14 - 10.5 = \boxed{3.5}$

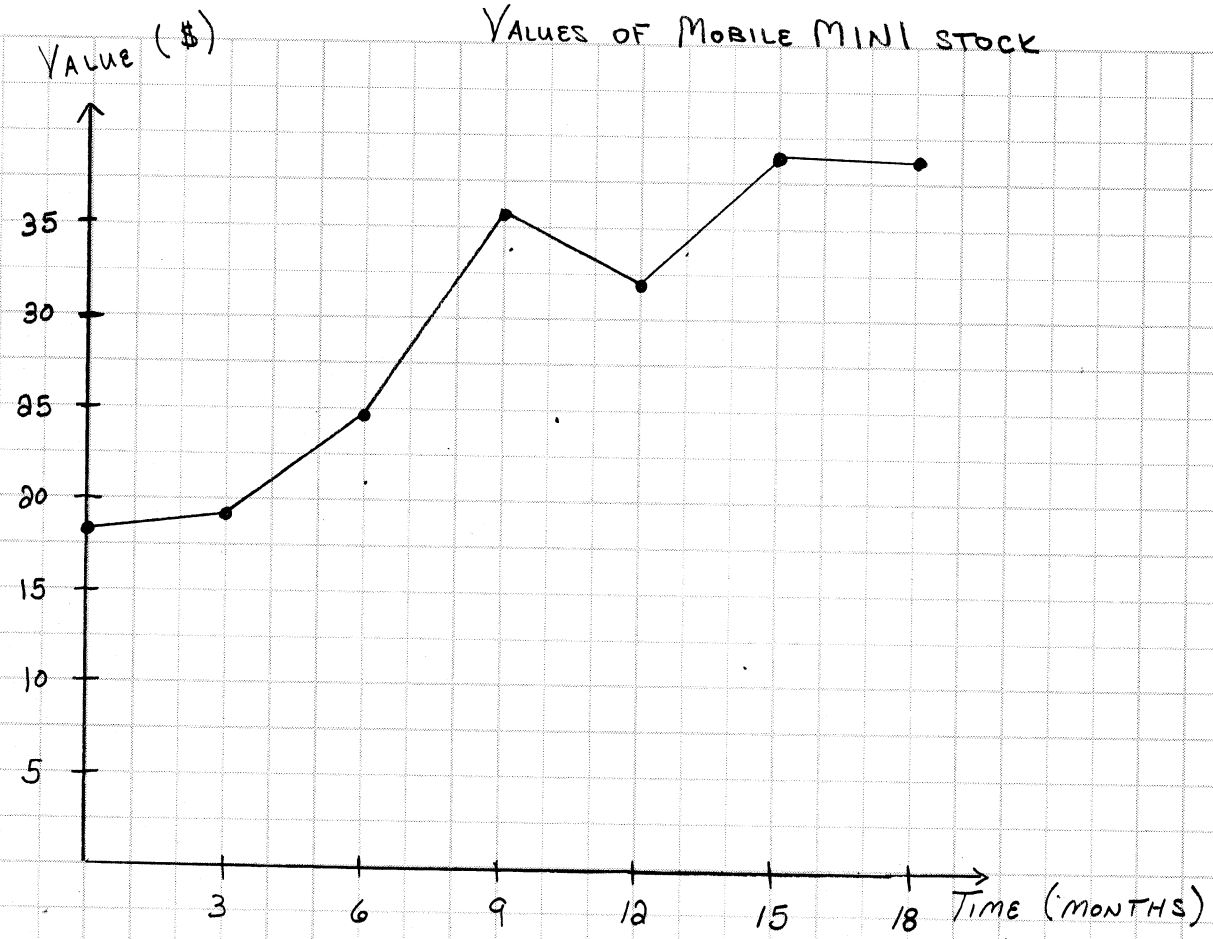
⇒ No outliers on low end

$21 + 10.5 = \boxed{31.5}$

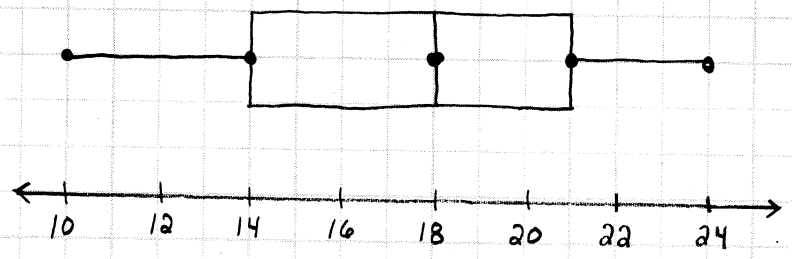
⇒ No outliers on high end

Boxplot on next page →

#1



#3



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