

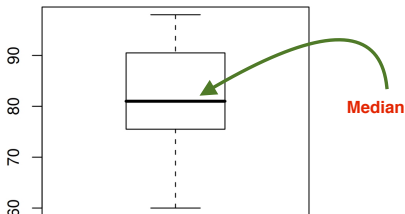
Lecture 5 - R Software

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Example: We take another look at the same exam grades with a box plot.

```
> boxplot(scores)
```



Sometimes, it is important to know if our data are normally distributed. For example, the box plot of scores above seems to suggest that those exam scores are approximately normal.

Normal distribution: Normal distribution, is a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean.

Note: The normal distribution is the most common type of distribution assumed in technical stock market analysis and in other types of statistical analyses.

There is yet another way to check, called a normal probability plot, produced by the `qqnorm()` function.

Normally distributed data will result in a plot that looks essentially linear, and `qqline()` draws a reference line that we can compare against.

Example: We verify the approximate normality of our exam scores.

```
> qqnorm(scores)
> qqline(scores)
```

