Math 3070 § 1.	**Concrete Cylinder Data**	Name: Example
Treibergs	**Stem Leaf and Dot Plots**	August 27, 2010

R Session:

```
R version 2.10.1 (2009-12-14)
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  Natural language support but running in an English locale

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Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.31 (5538) powerpc-apple-darwin8.11.1]

[Workspace restored from /Users/andrejstreibergs/.RData]

> # To see descriptions of R instructions, you can call up help:
> help(stem)
starting httpd help server ... done
> #
> # The easiest way to input data is to assign the list of values to the
> # vector, here named "x". data from Devore, Brooks Cole, 2009, p 21.
> #

> x <- c(6.1,5.8,7.8,7.1,7.2,9.2,6.6,8.3,7.0,8.3,7.8,8.1,7.4,8.5,8.9,9.8,9.7,14.1,12.6,11.2)

> # To check your inputs, you can type out the vector "x"

> x
 [1]  6.1  5.8  7.8  7.1  7.2  9.2  6.6  8.3  7.0  8.3  7.8  8.1  7.4  8.5
[15]  8.9  9.8  9.7 14.1 12.6 11.2
```
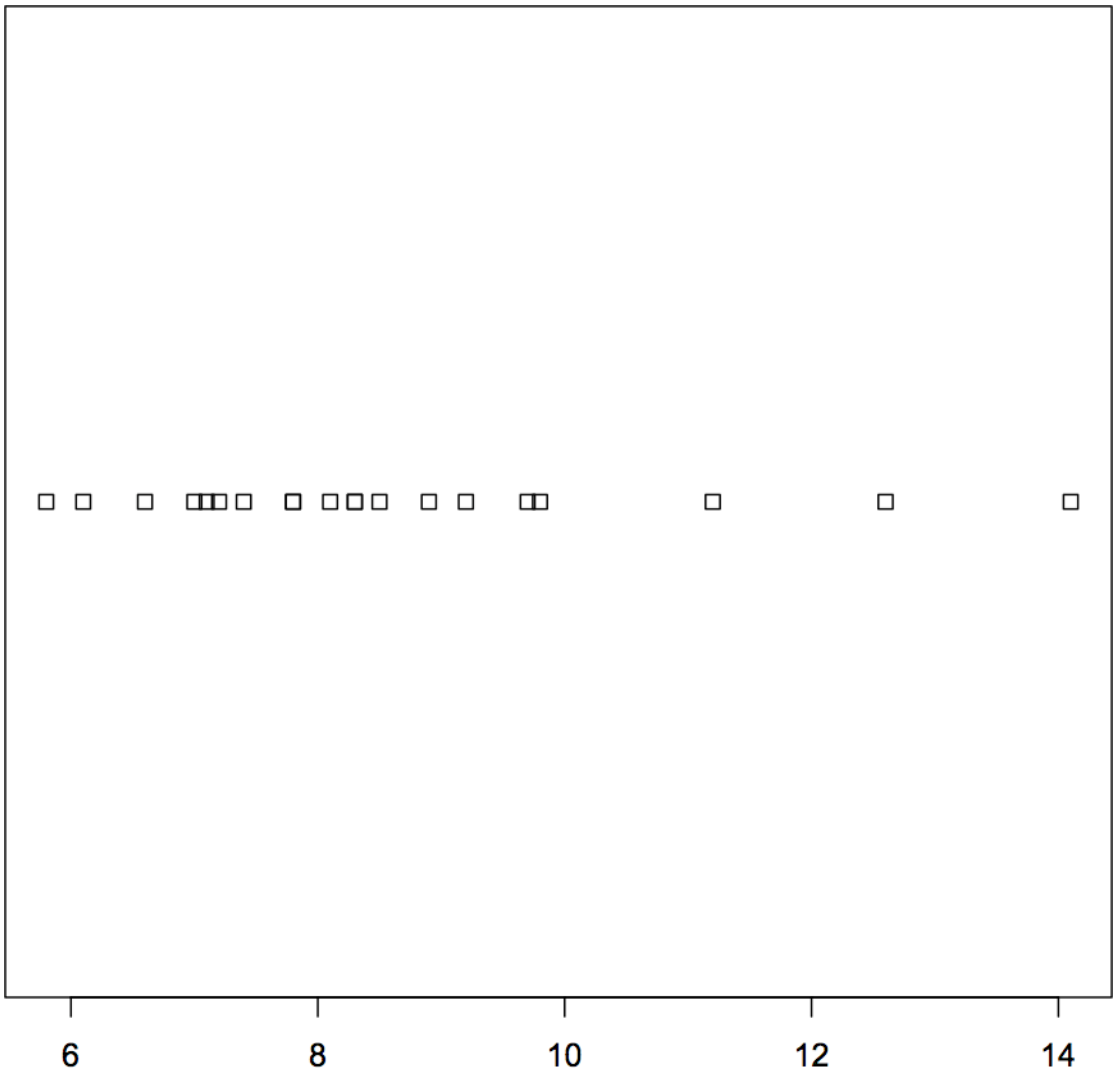
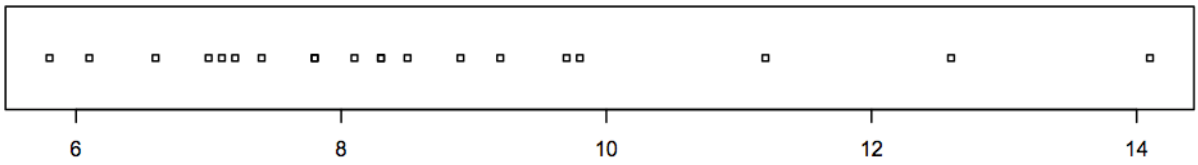

```
> #  The Stem-Leaf plot is automatically generated usint the "stem" instruction
> stem(x)

  The decimal point is at the |

   4 | 8
   6 | 16012488
   8 | 13359278
  10 | 2
  12 | 6
  14 | 1

> # Since stem automatically decides class widths, you might not get what you expect.
> # Here the widths came out 2: e.g. 6 | 16012488 are numbers between 6 and 8 which
> # means the class consists of 6.1, 6.6, 7.0, 7.1, 7.2, 7.4, 7.8 and 7.8

> #  To force stem to use narrower classes,


> stem(x, scale=2)

  The decimal point is at the |

   5 | 8
   6 | 16
   7 | 012488
   8 | 13359
   9 | 278
  10 |
  11 | 2
  12 | 6
  13 |
  14 | 1


> # which is the chart you'd draw by hand.
```

```
> # The dotplot instruction in R is called "stripchart"


>
> stripchart(x)

> #  You can add a label for the x-axis

> stripchart(x,xlab="Dot Plot of Cylinder Strengths, Prob. 1.2(14)")
>

> # The "layout" instruction puts four horizontal dot plots on the same page.
> # We do three dot plots. Using method="stack" moves dots vertically apart.
> # method="overplot" is the default.



> layout(matrix(1:4,ncol=1))
> stripchart(x)
> stripchart(x, method="stack")
> stripchart(x, method="overplot")
```



Dot Plot of Cylinder Strengths, Prob. 1.2(14)


6
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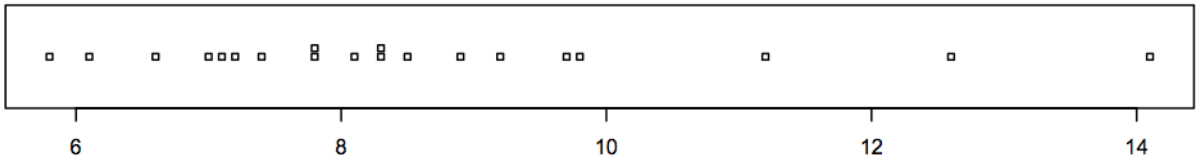
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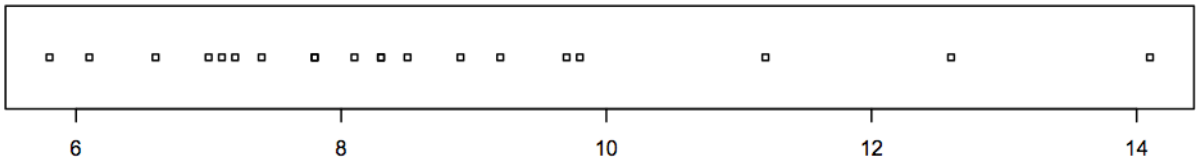
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