Question 3.12

a. The number of loosestrife plants and the shadiness category for the 10th plot is shown in Table 1.

Table 1. Number of loosestrife plants and the shadiness category for the 10th plot

```
   lstrf shade
10    23     0
```

b. The number of loosestrife plants in each plot is shown in Table 2.

Table 2. Number of loosestrife plants in each plot.

```
 [1] 13  2  1  0  9 11  5  5 14 23  0  2  3  3  6  7  4 16  1
```

c. The data for each completely shaded plot is shown in Table 3.

Table 3. Results for each completely shaded plot.

```
  lstrf shade
1     2     S
2     1     S
3     0     S
4     5     S
5     0     S
6     2     S
7     4     S
8     1     S
```

d. The data for each of the open plots is shown in Table 4.

Table 4. Results for each of the open plots.

```
  lstrf shade
1    13     0
2     9     0
3    11     0
4    14     0
5    23     0
6    16     0
```

e. The data for each open and partially shaded plot is shown in Table 5.

Table 5. Results for each open and partially shaded plot.

```
   lstrf shade
1     13     0
2      9     0
3     11     0
4      5     P
5     14     0
6     23     0
7      3     P
8      3     P
9      6     P
10     7     P
11    16     0
```

f. The data for each plot with more than 10 loosestrife plants is shown in Table 6.

Table 6. Results for each plot with more than 10 loosestrife plants.

	lstrf	shade
1	13	0
2	11	0
3	14	0
4	23	0
5	16	0

g. The data for each completely shaded plot with less than five plants is shown in Table 7.

Table 7. Results for each completely shaded plot with less than five plants.

	lstrf	shade
1	2	S
2	1	S
3	0	S
4	0	S
5	2	S
6	4	S
7	1	S

Appendix R Commands

```
library(NCStats)
setwd('C:/aaaWork/Books/IntroStats/HW/')
df <- read.csv("loostrife.csv")
df[10,]
df$lstrf
filterD(df,shade=="S")
filterD(df,shade=="0")
filterD(df,shade!="S")
filterD(df,lstrf>10)
filterD(df,shade=="S",lstrf <5)
```

Notes from the Professor

- In 3.12b, use the variable name (e.g., `df$lstrf`) rather than the column position (e.g., `df[,1]`).
- Don't use `view()`, `headtail()`, `head()`, or `tail()` when you want to see an entire data frame because it only shows a random six rows. Type the name of the data frame object if you want to see the entire data frame.
- You should have no R code in the "answers" part of your document. Your R code should appear, without any command prompts or additional labeling, as an appendix at the end of your document. You or I should be able to copy all of the code in your appendix into R and have it run without error (with the possible exception that I would have to change your working directory in `setwd()`).
- Make sure you follow the directions for formatting your homework found [here](http://derekogle.com/NCMTH107/resou
- Make sure that tables and figures are labelled and referred to as described [here](http://derekogle.com/NCMTH107/resou Failure to do so will result in missed points on the next homework.