Statistics X L 10
Spring 2002
Prof. Dinov
HW #1 Solutions

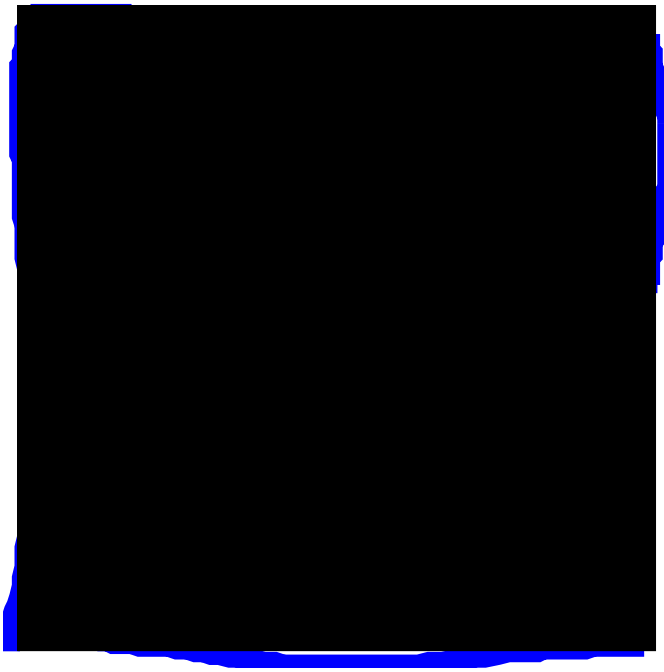
HW 1.1

Study 1

Treatment: subject weights.
Response: score on comprehensive exam.
This is an *uncontrolled experiment*, because there is no feasible way the researcher could randomly assign subjects to different treatment groups, yet the study is not strictly observational. There is no blocking in this study.

Study 2

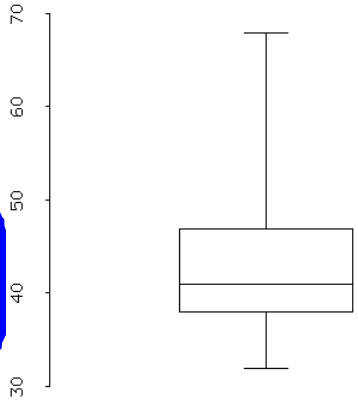
Treatment: baking temperature.
Response: impact strength.
This is an *experiment*. For blinding purposes, the lab which evaluates impact strength should not know the baking temperatures. There is no blocking in this study.



HW 1.2

```
Stem Leaf                    #
   6 8                       1
   6
   5 8                       1
   5 02                      2
   4 67799                   5
   4 01122234                8
   3 567788889               9
   3 244                     3
     ----+----+----+----+
```

Mean	42.66
Min	32
Lower quartile	38
Median	41
Upper quartile	47
Max	68



The data are right-skewed, which means that there are a small number of days in which a very large number of parking tickets are given out.

The median number of parking tickets is 41. The minimum number of 32 is only 9 tickets less than the median, while the maximum number of 68 is 27 tickets more than the median.

The mean number of tickets (42.66) is larger than the median. This is typical of right-skewed distributions.