Homework 4
MATH 4830, Spring 2006
due Thurs. Feb. 16

1. p. 52, Problem 19, (d), by hand.

2. p. 52, Problem 19 (d), using R.

To do this problem in R, you need to read the data into an R object and use the t.test function.

```
> diet <- read.table("http://www-math.cudenver.edu/~bbailey/4830/diet.dat'', header=T)
```

The regular oil diet group is in `diet$Roil`
The t.test function will perform a one sample t-test by,

```
> ttest1 <- t.test(diet$Roil)
```

To see what is is the ttest1 object, type ttest1 at the R command line and hit return.

How do your answers in Problem 1 and 2 compare?

3. p. 51, Problem 13, by hand.

4. p. 52, Problem 14, using R.

You can use the same R dataset diet as in Problem 2.

Make side-by-side boxplots of the two datasets in R, (the command boxplot(diet) will do this for you).

The t-test function will perform a two sample t-test and return corresponding confidence intervals. Please see the help file on t.test to make sure you understand how to use the function!, i.e.,

What do all of the following t.test arguments do?

```
t.test(x, y = NULL,
       alternative = c("two.sided", "less", "greater"),
       mu = 0, paired = FALSE, var.equal = FALSE,
       conf.level = 0.95, ...)
```