We want to test whether the average over the first 25 years (1912 to 1936) of the data is statistically significantly different than the average over the last 25 years (1947 to 1971) of the data set.

Null: there is no difference in the average over the first 25 years and the last 25 years.

Alternative: there is a difference in the average over the first 25 years and the last 25 years.

$p < .05$, the exact amount p-value = 0.0006383, therefore the null hypothesis is rejected

There is a difference of 1.484 in the averages of the first 25 years and the last 25 years in New Haven, CT from 1912 to 1971.

Code:
```
View(nhtemp)
first25 = nhtemp[1:25]
last25 = nhtemp[36:60]

#Dependent t-Test

nhtempFirst = t.test(first25, last25, paired=TRUE)
nhtempFirst

mean(first25)
mean(last25)
```

Console information:
```
> mean(first25) [1] 50.416
> mean(last25) [1] 51.9

Paired t-testdata:  first25 and last25
t = -3.924, df = 24, p-value = 0.0006383
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -2.2645321 -0.7034679
sample estimates:
mean of the differences  -1.484
```