Untitled

Me

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Quallification of R

Explorations Using NIST datasets

32-Bit R and 32-bit Windows System 7

Univariate Summary Statistics

```
options(digits=15)
```

Using NumAcc4.dat file. The data file was modified to remove the header information that was included and will be loaded as NumAcc4.txt

The data set has 1 variable and 1001 observations.

First variable 10000000.2 presented as a sample.

expected results (certified) are:

mean = 10000000.2 (exact)

Standard Deviation = 0.1 (exact)

```
# load NumAcc4.dat file
# Note: header information was removed from the file and it was renamed NumAcc4.txt

NumAcc4 <- read.table(file="~/R/workspace/qual/raw data/NumAcc4.txt")
mean(NumAcc4$V1)
```

```
## [1] 10000000.2
```

```
sd(NumAcc4$V1)
```

```
## [1] 0.100000000558794
```

```
length(NumAcc4$V1)
```

```
## [1] 1001
```

Using NumAcc3.dat file The data file was modified to remove the header information that was included and will be loaded as NumAcc3.txt

The data set has 1 variable and 1001 observations.

First variable 1000000.2 presented as a sample.

expected results (certified) are:

mean = 1000000.2 (exact)

Standard Deviation = 0.1 (exact)

```
# load NumAcc3.dat, modifided as NumAcc4
NumAcc3 <- read.table(file="~/r/workspace/qual/raw data/numacc3.txt")
mean(NumAcc3$V1)
```

```
## [1] 1000000.2
```

```
sd(NumAcc3$V1)
```

```
## [1] 0.100000000034925
```

```
length(NumAcc3$V1)
```

```
## [1] 1001
```

Using NumAcc2.dat file The data file was modified to remove the header information that was included and will be loaded as NumAcc2.txt

The data set has 1 variable and 1001 observations.

First variable 1.2 presented as a sample.

expected results (certified) are:

mean = 1.2 (exact)

Standard Deviation = 0.1 (exact)

```
# load NumAcc2.dat, modifided as NumAcc4
NumAcc2 <- read.table(file="~/r/workspace/qual/raw data/numacc2.txt")
mean(NumAcc2$V1)
```

```
## [1] 1.2
```

```
sd(NumAcc2$V1)
```

```
## [1] 0.1
```

```
length(NumAcc2$V1)
```

```
## [1] 1001
```

Using NumAcc1.dat file The data file was modified to remove the header information that was included and will be loaded as NumAcc1.txt

The data set has 1 variable and 3 observations.

First variable 10000001 presented as a sample.

expected results (certified) are:

mean = 10000002 (exact)

Standard Deviation = 1 (exact)

```
# load NumAcc1.dat, modifided as NumAcc4
NumAcc1 <- read.table(file="~/r/workspace/qual/raw data/numacc1.txt")
mean(NumAcc1$V1)
```

```
## [1] 10000002
```

```
sd(NumAcc1$V1)
```

```
## [1] 1
```

```
length(NumAcc1$V1)
```

```
## [1] 3
```

Using Michelso.dat file The data file was modified to remove the header information that was included and will be loaded as Michelso.txt

The data set has 1 variable and 100 observations.

First variable 299.85 presented as a sample.

expected results (certified) are:

mean = 299.852400000000

Standard Deviation = 0.0790105478190518

```
# load Michelso.dat, modifided as NumAcc4
Michelso <- read.table(file="~/r/workspace/qual/raw data/Michelso.txt")
mean(Michelso$V1)
```

```
## [1] 299.8524
```

```
sd(Michelso$V1)
```

```
## [1] 0.0790105478190507
```

```
length(Michelso$V1)
```

```
## [1] 100
```

Using Mavro.dat file The data file was modified to remove the header information that was included and will be loaded as Mavro.txt

The data set has 1 variable and 50 observations.

First variable 2.00180 presented as a sample.

expected results (certified) are:

mean = 2.00185600000000

Standard Deviation = 0.000429123454003053

```
# load Mavro.dat, modifided as NumAcc4
Mavro <- read.table(file="~/r/workspace/qual/raw data/Mavro.txt")
mean(Mavro$V1)
```

```
## [1] 2.001856
```

```
sd(Mavro$V1)
```

```
## [1] 0.000429123454003085
```

```
length(Mavro$V1)
```

```
## [1] 50
```

Using Lew.dat file The data file was modified to remove the header information that was included and will be loaded as Mavro.txt

The data set has 1 variable and 200 observations.

First variable -213 presented as a sample.

expected results (certified) are:

mean = -177.435000000000

Standard Deviation = 277.332168044316

```
# load Lew.dat, modifided as NumAcc4
Lew <- read.table(file="~/r/workspace/qual/raw data/Lew.txt")
mean(Lew$V1)
```

```
## [1] -177.435
```

```
sd(Lew$V1)
```

```
## [1] 277.332168044316
```

```
length(Lew$V1)
```

```
## [1] 200
```

Using Lottery.dat file The data file was modified to remove the header information that was included and will be loaded as Mavro.txt

The data set has 1 variable and 218 observations.

First variable 162 presented as a sample.

expected results (certified) are:

mean = 518.958715596330

Standard Deviation = 291.699727470969

```
# load Lottery.dat, modifided as NumAcc4
Lottery <- read.table(file="~/r/workspace/qual/raw data/Lottery.txt")
mean(Lottery$V1)
```

```
## [1] 518.95871559633
```

```
sd(Lottery$V1)
```

```
## [1] 291.699727470969
```

```
length(Lottery$V1)
```

```
## [1] 218
```

Using PiDigits.dat file The data file was modified to remove the header information that was included and will be loaded as Mavro.txt

The data set has 1 variable and 5000 observations.

Variables are all single digits.

expected results (certified) are:

mean = 4.53480000000000

Standard Deviation = 2.86733906028871

```
# load PhiDigits.dat, modifided as NumAcc4
PiDigits <- read.table(file="~/r/workspace/qual/raw data/PiDigits.txt")
mean(PiDigits$V1)
```

```
## [1] 4.5348
```

```
sd(PiDigits$V1)
```

```
## [1] 2.86733906028871
```

```
length(PiDigits$V1)
```

```
## [1] 5000
```