Chapter 1: Practice Problems

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Problem 1.27 (page 24) Dataset: SHIPSANIT

```
load("~/Desktop/depaul/CSC423/rdata/R/Exercises&Examples/SHIPSANIT.Rdata")
View(head(SHIPSANIT))
```

a. The sample mean (y-bar) is 94.91 & the sample standard deviation (s) is 4.83

```
library(psych)
describe(SHIPSANIT$Score)
```

```
##   vars   n  mean   sd median trimmed  mad min max range  skew kurtosis
## 1    1 169 94.91 4.83     96   95.58 2.97  62 100    38 -2.96     14.5
##     se
## 1 0.37
```

b. The interval of the sample mean plus or minus the 2x of the sample standard deviation is [104.57, 85.25] as the upper and lower bounds respectively.

c. The percentage of all scores that fall between the interval is 97.63314

```
in.bounds <- subset(SHIPSANIT, Score >= 85.25, Score <= 104.57)
val1 <- nrow(in.bounds) # the amount of scores that fall between the interval
val2 <- nrow(SHIPSANIT)
val1 / val2 * 100
```

```
## [1] 97.63314
```