

## Demonstration of Mean Imputation with R

```
#### 1. Create a "True" Data set ####
TrueX <- rnorm(100,100,15)
TrueX <- round(TrueX)
TrueX

#### 2. Summary and Confidence Interval ####
summary(TrueX)

t.test(TrueX,mu=100)

#### 3. Create a data set with some value missing ####

# "part" for partial

index <- sample(1:100,10)
partX <- TrueX
partX[index] <- NA

partX

#### 4. Summary and Confidence Interval ####

summary(partX)

t.test(partX,mu=100)

#### 5. Create an Imputation Value (mean or median) ####

# Wrong
imputeValue <- median(partX)

#Right
imputeValue <- mean(partX,na.rm=TRUE)

#### 6. Impute this value into the data ####

imputedX <- partX

imputedX [is.na(imputedX)] <- imputeValue
```

```
#### 7. Summary and Confidence Interval ####
```

```
summary(imputedX)
```

```
t.test(imputedX,mu=100)
```