AMS597 Quiz 1 Suggested Solution

Your code should be wrapped as a function which returns a list containing the three specified objects (`newstring`, `Nupper`, `Nlower`).

Please note that you should name your function with **your own last name**, not with the words "yourLast-Name" in your function's name.

```r
KuanFormatString <- function(x){

  # Split string into vector of characters
  x1 <- strsplit(x,split='')[[1]]

  # Count number of uppercase letters
  Nupper <- length(grep('[A-Z]',x1))

  # Count number of lowercase letters
  Nlower <- length(grep('[a-z]',x1))

  # Replace lowercase with @
  x <- gsub('[a-z]','@',x)

  # Replace uppercase with &
  x <- gsub('[A-Z]','&',x)

  # Have function return the desired list
  return(list(newstring=x, Nupper=Nupper, Nlower=Nlower))
}
```

Testing the function:

```r
mystring <- "d*#LMN.os123BPT$$pQFs7"
KuanFormatString(mystring)
```

```
## $newstring
## [1] "@*#&&&.@@123&&&$$@&&@7"
##
## $Nupper
## [1] 8
##
## $Nlower
## [1] 5
```