Rworksheet_Loredo#3a.Rmd

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.
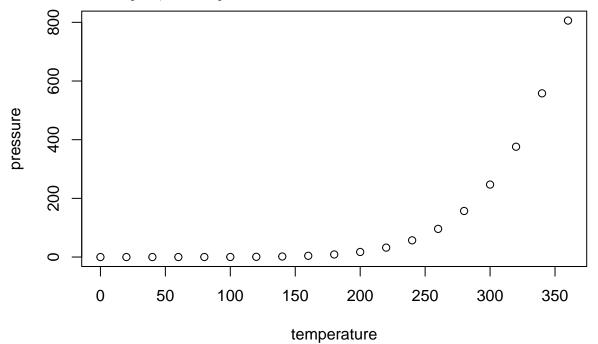
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

#1a. Produce a vector that contains the first 11 letters. LETTERS_11 <- LETTERS[c(1:11)] LETTERS_11

#b. Produce a vector that contains the odd numbered letters. lenLet <- length(LETTERS) oddNum <- LETTERS[seq(lenLet) %% 2 == 1] oddNum

#c. Produce a vector that contains the vowels vowels <- LETTERS [c(1,5,9,15,21)] vowels

#d. Produce a vector that contains the last 5 lowercase letters. Letters5 <- letters [c(20:24)] Letters5

#e. Produce a vector that contains letters between 15 to 24 letters in lowercase. fifto24 <- letters [c(17:24)] fifto24

#2a. CityVector = c("Tuguegarao City", "Manila", "Iloilo City", "Tacloban", "Samal Island", "Davao City") CityVector

#2b. temp <- c(42, 39, 34, 34, 30, 27) temp

#2c. city_temp <- data.frame(CityVector,temp) city_temp

#2d. names(city_temp) <- c("CityVector", "Temperature") city_temp

#2e.

str(city_temp) # the code displayed the structure of the city_temp object # it displayed the contents of the data frame # it displayed the summary of the data frame

#2f. twoRows <- city_temp[3:4,]

#2g. highest <- city_temp[which.max(city_temp$Temperature),] highest

lowest <- city_temp[which.min(city_temp$Temperature),] lowest

#Using matrices

#2a. matr <- matrix(c(1:8,11:14), nrow = 3, ncol = 4) matr

#b. mulMatr <- matr * 2 mulMatr

#c. rowTwo <- mulMatr[2,] rowTwo

#d. twoColsAndRows <- mulMatr[c(1,2),c(3,4)] twoColsAndRows

#e. twoColsOneRow <- mulMatr[3,c(2,3)] twoColsOneRow

#f. fourCol <- mulMatr[,4] fourCol

#g. dimnames(mulMatr) <- list(c("isa", "dalawa", "tatlo"), c("uno", "dos", "tres", "quatro")) mulMatr

#h. matr dim(matr) <- c(6,2) matr

#Arrays

#3a. values <- c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1) rep_values <- rep(values, each = 2)

arr <- array(rep_values, dim = c(2,4,3)) arr

#3b. #three dimensions

#3c. dimnames(arr) <- list(letters[1:2], # row names LETTERS[1:4], # col names c("1st-Dimensional Array", "2nd-Dimensional Array", "3rd-Dimensional Array") # dim names)

arr