Homework 32

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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.

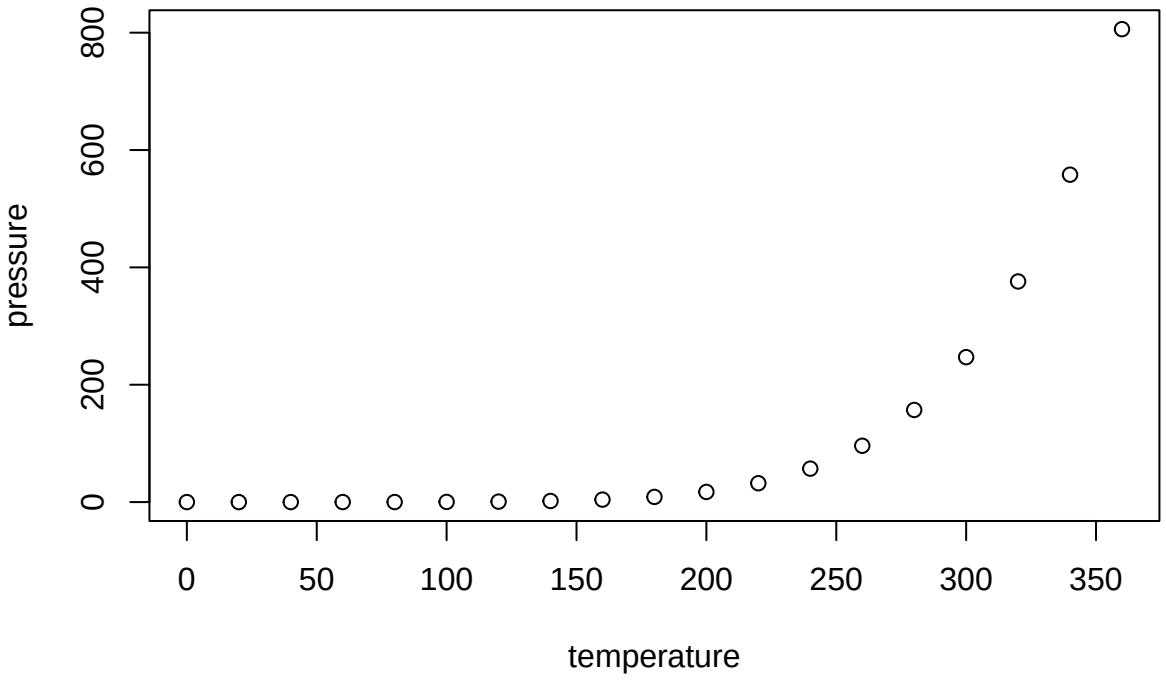
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
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.

pg. 139 #37, 39, 43, 45abce, 47

#37 a. 2.5%

```
253.76 + 2 * 312.36
```

```
## [1] 878.48
```

b. 2.5% of receivers gain more than 878.48 yards.

#39 a.

```
1 - pnorm(10.3, mean=8, sd=1.5)
```

```
## [1] 0.06259687
```

b.

```
pnorm(9.1, mean=8, sd=1.5)
```

```
## [1] 0.7683224
```

c.

```
pnorm(10.3, mean=8, sd=1.5) - pnorm(9.1, mean=8, sd=1.5)
```

```
## [1] 0.1690807
```

#43 a.

```
qnorm(0.4, mean=8, sd=1.5)
```

```
## [1] 7.619979
```

b.

```
qnorm(0.99, mean=8, sd=1.5)
```

```
## [1] 11.48952
```

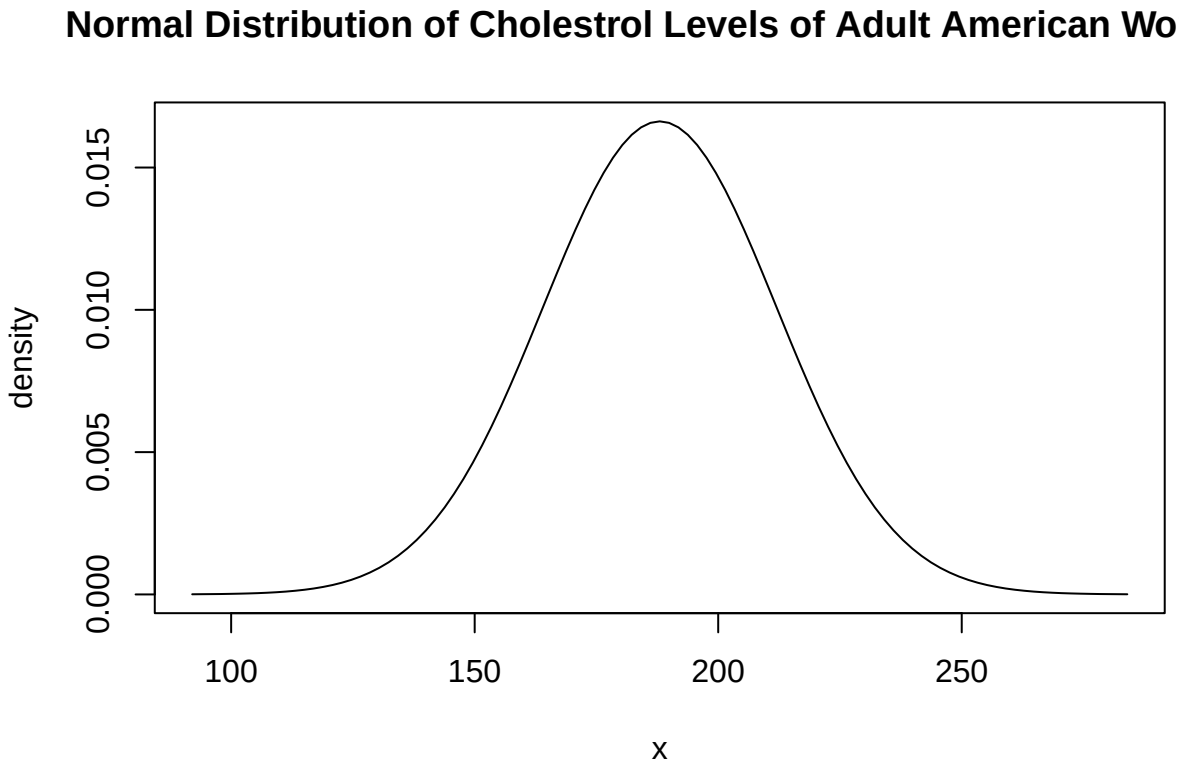
c.

```
qnorm(0.75, mean=8, sd=1.5) - qnorm(0.25, mean=8, sd=1.5)
```

```
## [1] 2.023469
```

#45 a.

```
curve(dnorm(x, mean=188, sd=24),
      xlim=c(188 - 4*24, 188 + 4*24),
      main="Normal Distribution of Cholestrol Levels of Adult American Women",
      ylab="density")
```



b.

```
1 - pnorm(200, mean=188, sd=24)
```

```
## [1] 0.3085375
```

c.

```
pnorm(170, mean=188, sd=24) - pnorm(150, mean=188, sd=24)
```

```
## [1] 0.1699546
```

e.

```
qnorm(0.85, mean=188, sd=24)
```

```
## [1] 212.8744
```

#47 a.

```
pnorm(36, mean=38.2, sd=1.8)
```

```
## [1] 0.1108118
```

b.

```
qnorm(0.1, mean=38.2, sd=1.8)
```

```
## [1] 35.89321
```

```
qnorm(0.9, mean=38.2, sd=1.8)
```

```
## [1] 40.50679
```

c.

```
qnorm(0.9, mean=38.2, sd=1.8)
```

```
## [1] 40.50679
```