Classwork 3 & 4

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Classwork 3:

Question 1:

```
require(tidyverse)
```

```
## Loading required package: tidyverse
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.0 --
```

```
## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.1.0     v dplyr   1.0.5
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
x<- list(2,4,5,9,1)
y<- list(8,7,2,8,3)
z<-list(1,8,5,4,2)

for (i in x) {
  for (j in y) {
    for (k in z) {
      print(k^2+j^2+i^2)
    }
  }
}
```

```
## [1] 69
## [1] 132
## [1] 93
## [1] 84
## [1] 72
## [1] 54
```

```
## [1] 117
## [1] 78
## [1] 69
## [1] 57
## [1] 9
## [1] 72
## [1] 33
## [1] 24
## [1] 12
## [1] 69
## [1] 132
## [1] 93
## [1] 84
## [1] 72
## [1] 14
## [1] 77
## [1] 38
## [1] 29
## [1] 17
## [1] 81
## [1] 144
## [1] 105
## [1] 96
## [1] 84
## [1] 66
## [1] 129
## [1] 90
## [1] 81
## [1] 69
## [1] 21
## [1] 84
## [1] 45
## [1] 36
## [1] 24
## [1] 81
## [1] 144
## [1] 105
## [1] 96
## [1] 84
## [1] 26
## [1] 89
## [1] 50
## [1] 41
## [1] 29
## [1] 90
## [1] 153
## [1] 114
## [1] 105
## [1] 93
## [1] 75
## [1] 138
## [1] 99
## [1] 90
## [1] 78
```

```
## [1] 30
## [1] 93
## [1] 54
## [1] 45
## [1] 33
## [1] 90
## [1] 153
## [1] 114
## [1] 105
## [1] 93
## [1] 35
## [1] 98
## [1] 59
## [1] 50
## [1] 38
## [1] 146
## [1] 209
## [1] 170
## [1] 161
## [1] 149
## [1] 131
## [1] 194
## [1] 155
## [1] 146
## [1] 134
## [1] 86
## [1] 149
## [1] 110
## [1] 101
## [1] 89
## [1] 146
## [1] 209
## [1] 170
## [1] 161
## [1] 149
## [1] 91
## [1] 154
## [1] 115
## [1] 106
## [1] 94
## [1] 66
## [1] 129
## [1] 90
## [1] 81
## [1] 69
## [1] 51
## [1] 114
## [1] 75
## [1] 66
## [1] 54
## [1] 6
## [1] 69
## [1] 30
## [1] 21
```

```
## [1] 9
## [1] 66
## [1] 129
## [1] 90
## [1] 81
## [1] 69
## [1] 11
## [1] 74
## [1] 35
## [1] 26
## [1] 14
```

Question 2:

```
table <- tribble(~Student, ~ Gender, ~ Salary,
        "John", "Male", 65000, "Alice", "Female", 73000, "Juan", "Male", 66000, "Beth", "Female", 71500

table
```

```
## # A tibble: 5 x 3
##   Student Gender Salary
##   <chr>   <chr>   <dbl>
## 1 John    Male    65000
## 2 Alice   Female  73000
## 3 Juan    Male    66000
## 4 Beth    Female  71500
## 5 Denise  Female  82000
```

```
table%>%
  pmap_chr(~ str_glue("{..1} who is {..2}, has a salary that is {..3}"))
```

```
## [1] "John who is Male, has a salary that is 65000"
## [2] "Alice who is Female, has a salary that is 73000"
## [3] "Juan who is Male, has a salary that is 66000"
## [4] "Beth who is Female, has a salary that is 71500"
## [5] "Denise who is Female, has a salary that is 82000"
```

Question 3:

```
matrix1 = matrix(nrow=5, ncol=5)
for(i in 1:nrow(matrix1))
{
  for(j in 1:ncol(matrix1))
  {
    matrix1[i,j] = i+j
  }
}
print(matrix1)
```

```
##      [,1] [,2] [,3] [,4] [,5]
## [1,]    2    3    4    5    6
## [2,]    3    4    5    6    7
## [3,]    4    5    6    7    8
## [4,]    5    6    7    8    9
## [5,]    6    7    8    9   10
```

Classwork 4:

```
ggplot(diamonds, aes(carat, price))+
  geom_point()
```