02.04.01-Quiz Notebook

Import the .R files to the environment;

```
source("pollutantmean.R")
source("complete.R")
source("corr.R")
```

Question 1

What value is returned by the following call to `pollutantmean()`? You should round your output to 3 digits.

```
pollutantmean("specdata", "sulfate", 1:10)
```

```
pollutantmean("specdata", "sulfate", 1:10)
```

```
## [1] 4.064128
```

Question 2

What value is returned by the following call to `pollutantmean()`? You should round your output to 3 digits.

```
pollutantmean("specdata", "nitrate", 70:72)
```

```
pollutantmean("specdata", "nitrate", 70:72)
```

```
## [1] 1.706047
```

Question 3

What value is returned by the following call to `pollutantmean()`? You should round your output to 3 digits.

```
pollutantmean("specdata", "sulfate", 34)
```

```
pollutantmean("specdata", "sulfate", 34)
```

```
## [1] 1.477143
```

Question 4

What value is returned by the following call to `pollutantmean()`? You should round your output to 3 digits.

```
pollutantmean("specdata", "nitrate")
```

```
pollutantmean("specdata", "nitrate")
```

```
## [1] 1.702932
```

Question 5

What value is printed at end of the following code?

```
cc <- complete("specdata", c(6, 10, 20, 34, 100, 200, 310))
print(cc$nobs)
```

```
cc <- complete("specdata", c(6, 10, 20, 34, 100, 200, 310))
print(cc$nobs)
```

```
## [1] 228 148 124 165 104 460 232
```

Question 6

What value is printed at end of the following code?

```
cc <- complete("specdata", 54)
print(cc$nobs)
```

```
cc <- complete("specdata", 54)
print(cc$nobs)
```

```
## [1] 219
```

Question 7

What value is printed at end of the following code?

```
set.seed(42)
cc <- complete("specdata", 332:1)
use <- sample(332, 10)
print(cc[use, "nobs"])
```

```
set.seed(42)
cc <- complete("specdata", 332:1)
use <- sample(332, 10)
print(cc[use, "nobs"])
```

```
##  [1] 711 135  74 445 178  73  49   0 687 237
```

Question 8

What value is printed at end of the following code?

```
cr <- corr("specdata")
cr <- sort(cr)
set.seed(868)
out <- round(cr[sample(length(cr), 5)], 4)
print(out)
```

```
cr <- corr("specdata")
cr <- sort(cr)
set.seed(868)
out <- round(cr[sample(length(cr), 5)], 4)
print(out)
```

```
## [1]  0.2688  0.1127 -0.0085  0.4586  0.0447
```

Question 9

What value is printed at end of the following code?

```
cr <- corr("specdata", 129)
cr <- sort(cr)
n <- length(cr)
set.seed(197)
out <- c(n, round(cr[sample(n, 5)], 4))
print(out)
```

```
cr <- corr("specdata", 129)
cr <- sort(cr)
n <- length(cr)
set.seed(197)
out <- c(n, round(cr[sample(n, 5)], 4))
print(out)
```

```
## [1] 243.0000   0.2540   0.0504  -0.1462  -0.1680   0.5969
```

Question 10

What value is printed at end of the following code?

```
cr <- corr("specdata", 2000)
n <- length(cr)
cr <- corr("specdata", 1000)
cr <- sort(cr)
print(c(n, round(cr, 4)))
```

```
cr <- corr("specdata", 2000)
n <- length(cr)
cr <- corr("specdata", 1000)
cr <- sort(cr)
print(c(n, round(cr, 4)))
```

```
## [1]  0.0000 -0.0190  0.0419  0.1901
```