Problem Set Part 4

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```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
data <- read.csv("~/Documents/2017-18/ECON241/ps1/pwt_excerpt.csv")
```

(A)

```
data <- data %>% mutate(gdpPercap = rgdpna/emp, capPercap = rkna/emp)
mean(data$gdpPercap)
```

```
## [1] 40453.4
```

```
cor(data$gdpPercap, data$capPercap)
```

```
## [1] 0.8666329
```

(B)

```
data <- data %>% mutate(savingsRate = delta*capPercap/gdpPercap)
mean(data$savingsRate)
```

```
## [1] 0.1539299
```

(C)

```
data <- data %>% mutate(lnA = log(gdpPercap)-1/3*log(capPercap))
mean(data$lnA)
```

```
## [1] 6.360615
```

(D)

```
countries <- data %>% filter(country %in% c("Republic of Korea", "United States"))
log(countries[1,9]/countries[2,9])
```

```
## [1] -0.35477
```

```
countries[1,11]-countries[2,11]
```

```
## [1] -0.4088857
```

```
countries[1,10]/countries[2,10]
```

```
## [1] 1.27428
```