Assignment2

2019150445/Shin Baek Rok

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```
library(ggplot2)
library(tidyverse)
```

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

## v tibble  3.0.3     v dplyr   1.0.2
## v tidyr   1.1.1     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.5.0
## v purrr   0.3.4

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

1.

```
midwest<-midwest %>% mutate(child_ratio=((poptotal-popadults)/poptotal)*100)
```

2.

```
midwest %>% arrange(-child_ratio) %>% head(10) %>% select(child_ratio)
```

```
## # A tibble: 10 x 1
##    child_ratio
##          <dbl>
##  1        51.5
##  2        50.6
##  3        49.3
##  4        49.1
##  5        47.4
##  6        47.3
##  7        47.1
##  8        46.7
##  9        46.3
## 10        45.9
```

3.

```
midwest<-midwest %>% mutate(grade=case_when(
  child_ratio>=45 ~ 'large',
  child_ratio>=30 & child_ratio<45 ~ 'middle',
  child_ratio<30 ~ 'small'

))
midwest$grade %>% table()
```

```
## .
##  large middle  small
##     11    417      9
```

4.

```
 midwest<-midwest %>% mutate(asian_ratio=(popasian/poptotal)*100)

midwest %>% arrange(asian_ratio) %>% head(5) %>% select(state, county, asian_ratio)
```

```
## # A tibble: 5 x 3
##   state county    asian_ratio
##   <chr> <chr>           <dbl>
## 1 WI    MENOMINEE       0
## 2 IN    BENTON          0.0106
## 3 IN    CARROLL         0.0159
## 4 OH    VINTON          0.0270
## 5 WI    IRON            0.0325
```