HW3\_Group1\_Austin Halvorsen

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Sep 22 2020

# Problems

## Question 1

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

library(tidyverse)

## ── Attaching packages ───────────────────────── tidyverse 1.3.0 ──

## ✓ ggplot2 3.3.2 ✓ purrr 0.3.4  
## ✓ tibble 3.0.3 ✓ stringr 1.4.0  
## ✓ tidyr 1.1.2 ✓ forcats 0.5.0  
## ✓ readr 1.3.1

## ── Conflicts ──────────────────────────── tidyverse\_conflicts() ──  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(wooldridge)  
  
## Make the data frame  
family <- data.frame(x = 1:10, y = c(300,440,350,1100,640,480,450,700,670,530))  
  
names(family)[1] <- "family"   
names(family)[2] <- "monthly\_expense"

### (i)

Find the average monthly housing expenditure.

mean(family$monthly\_expense)

## [1] 566

### (ii)

median(family$monthly\_expense)

## [1] 505

### (iii)

adj1 <- family %>%   
 mutate(  
 hundreds\_dollar = monthly\_expense / 100  
 )   
  
mean(adj1$hundreds\_dollar)

## [1] 5.66

median(adj1$hundreds\_dollar)

## [1] 5.05

### (iv)

adj2 <- family  
adj2[8,2] <- adj2[8,2] + 100  
mean(adj2$monthly\_expense)

## [1] 576

median(adj2$monthly\_expense)

## [1] 505

## Question 2

## Question 3

### (i)

### (ii)

### (iii)

## Question 4

## Question 5

## Question 6