

Question 1

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December 3, 2020

```
knitr::opts_chunk$set(echo = TRUE, include = TRUE)
setwd("C:/Users/froelijo/dev/methods1/hw10")
lead = read.csv('lead2.csv')
```

Part A

```
fit1 = lm(iq ~ expose, data = lead)
a = fit1$coefficients[2]
```

On average, those who are exposed to lead have a -7.7703456 point lower IQ score than those who were not exposed.

Part B

```
fit2 = lm(iq ~ expose + sex, data = lead)
b = fit2$coefficients[2]
```

In the presence of sex, those who are exposed to lead have a -7.9163116 point lower IQ score than those who were not exposed.

Part C

```
fit3 = lm(sex ~ expose, data = lead)
c1 = (fit1$coefficients[2] - fit2$coefficients[2]) / fit1$coefficients[2] * 100
c2 = summary(fit2)$coefficients[3, 4]
# summary(fit2)
# summary(fit3)
```

Sex is not a confounder of the association between IQ and lead exposure. We should report the result from part A, because it is not accounting for sex in the model. We have established that sex (-1.8785011% change, $p = 0.4196026$) is not significant, and therefore, there is no reason to include it in the model.