

Week 1 Quiz

NOTE DE LA SOUMISSION LA PLUS RÉCENTE

100%

1. The American Community Survey distributes downloadable data about United States communities. Download the 2006 microdata survey about housing for the state of Idaho using `download.file()` from here:

<https://data510xpsqa4f0ncr.cloudfront.net/ytdata%7Edata%7Eex06hid.csv>

and load the data into R. The code book, describing the variable names is here:

<https://data510xpsqa4f0ncr.cloudfront.net/ytdata%7Edata%7EPIUMSDataDir06.pdf>

How many properties are worth \$1,000,000 or more?

- ☐ 31
- ☐ 47
- ☐ 164
- ☒ 53

✓ Correct

2. Use the data you loaded from Question 1. Consider the variable `FES` in the code book. Which of the "tidy data" principles does this variable violate?

- ☐ Tidy data has one observation per row.
- ☒ Tidy data has one variable per column.
- ☐ Each tidy data table contains information about only one type of observation.
- ☐ Each variable in a tidy data set has been transformed to be interpretable.

✓ Correct

3. Download the Excel spreadsheet on Natural Gas Acquisition Program here:

https://data510xpsqa4f0ncr.cloudfront.net/ytdata%7Edata%7EEXDATA.gov_NGAP.xlsx

Read rows 18-23 and columns 7-15 into R and assign the result to a variable called:

```
1 dat
```

What is the value of:

```
1 sum(dat$Z1p*dat$Ext, na.rm=T)
```

(original data source: <http://catalog.data.gov/dataset/natural-gas-acquisition-program>)

- ☒ 36534720
- ☐ NA
- ☐ 0
- ☐ 154339

✓ Correct

4. Read the XML data on Baltimore restaurants from here:

<https://data510xpsqa4f0ncr.cloudfront.net/ytdata%7Edata%7ERestaurants.xml>

How many restaurants have zipcode 21231?

- ☐ 17
- ☐ 181
- ☒ 127
- ☐ 100

✓ Correct

5. The American Community Survey distributes downloadable data about United States communities. Download the 2006 microdata survey about housing for the state of Idaho using `download.file()` from here:

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using the `fread()` command load the data into an R object

```
1 DT
```

The following are ways to calculate the average value of the variable

```
1 pwgtp15
```

broken down by sex. Using the `data.table` package, which will deliver the fastest user time?

- ☒ `DT[,mean(pwgtp15),by=SEX]`
- ☐ `tapply(DT$pwgtp15,DT$SEX,mean)`
- ☐ `rowMeans(DT[DT$SEX==1]; rowMeans(DT[DT$SEX==2])`
- ☐ `mean(DT[DT$SEX==1,$pwgtp15]; mean(DT[DT$SEX==2,$pwgtp15])`
- ☐ `mean(DT$pwgtp15,by=DT$SEX)`
- ☐ `apply(split(DT$pwgtp15,DT$SEX),mean)`

✓ Correct