Average Temperatures **COMS 261**

Yesterday, we looked at the average high temperatures for Farmville, VA.

```
with open("average_temps.txt") as f:
    data = [line.strip().split(";") for line in f.readlines()]
```

1. Inspect the contents of the variable called `data`. Which of the following variable names would make the most sense to describe the items in the `data` list?

   A. `temp` B. `month` C. `day` D. `number`

2. Complete the following for-loop by adding the missing code.

```
for item in data:
    # Get the date.
    date =


    # Get the average high temperature in Celsius.
    celsius =


    # Print the date and the average high temperature in Celsius.
    print(
```

3. Write a list comprehension that generates a list of integer-valued high temperatures (in Fahrenheit). You should get a list of 366 integers, one for each day of the year.

4. Assuming the previous list is called `temperatures`, write a list comprehension to *map* the items in `temperatures` from Fahrenheit to Celsius. Use the formula $C = \frac{5}{9}(F - 32)$.

5. The following incomplete list comprehension will *filter* `data` to only include information about January. What code should replace the question marks?

```
january_data = [item for item in data if ???]
```