Data Science with Python
Ticket Out the Door
Set 11: Loops Part 2

Name _____ Period _____

Skill 11.1 Exercise 1

Refer to the dog breed list below,

```
dog_breeds = ["french_bulldog", "dalmatian", "shihtzu", "poodle", "collie"]
breed_I_want = "dalmatian"
```

(a) Using a for loop, iterate through the *dog_breeds* list and print out each dog breed.
(b) Inside your for loop, check if the current element inside *dog_breed* is equal to *breed_I_want*. If so, print "They have the dog I want!"
(c) Add a *break* statement when your loop has found *breed_I_want* so that the rest of the list does not need to be checked once we have found our breed.

Skill 11.2 Exercise 1

Your computer is the doorman at a bar in a country where the drinking age is 21.

Loop through the ages list. If an entry is less than 21, skip it and move to the next entry. Otherwise, print the age.

```
ages = [12, 38, 34, 26, 21, 19, 67, 41, 17]
```

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Skill 11.3 Exercise 1

Below is *sales_data* that shows the number of scoops sold for different flavors of ice cream at three different *locations*: Scoopcademy, Gilberts Creamery, and Manny's Scoop Shop.

```
locations = ["Scoopcademy", "Gilberts Creamery", "Manny's Scoop Shop"]
sales_data = [[12, 17, 22, 13], [2, 10, 3, 6], [5, 12, 13, 9]]
```

We want to sum up the total number of scoops sold across all three locations and report the results as follows,

```
Scoopcademy: 64
Gilberts Creamery: 21
Manny's Scoop Shop: 39
```

Skill 11.4 Exercise 1

We have been provided a list of grades in a physics class. Using a list comprehension, create a new list called *scaled grades* that scales the class grades based on the highest score. Since the highest score was a 90 we simply want to add 10 points to all the grades in the list.

```
grades = [90, 88, 62, 76, 74, 89, 48, 57]
```

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Skill 11.5 Exercise 1

We have defined a list heights of visitors to a theme park. In order to ride the Topsy Turvy Tumbletron roller coaster, you need to be above 161 centimeters.

Using a list comprehension, create a new list called *can_ride_coaster* that has every element from heights that is greater than 161.

```
heights = [161, 164, 156, 144, 158, 170, 163, 163, 157]
```