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# Python Fundamental Project 1

Which one of these Variable Types is used for storing a number with a decimal point (such as 52.63) ?

- Integer
- **Float**
- String
- Boolean

What will the following code output in the console when executed?

var1 = 10

var2 = 200

result = var1 > var2

Result

- 20
- True
- **False**
- NA

What will the following code will return when executed?

```
import numpy as np
from numpy.random import randn
randn()
```

- 0.9029329
- 5
- A random number from a uniformly distributed set of numbers
- **A random number from a normally distributed set of numbers**

What is the "if" statement used for in programming?

- The "if" statement allows us to create loops so that we can run multiple iterations of a block of code
- The "if" statement is useless - it is just a pretty word to put into your code when you are unsure of something is correct
- The "if" statement outputs messages onto the user's screen
- **The "if" statement allows us to isolate a block of code and execute it only when a certain condition is met**

What will the following code return?

MyList = [12, True, 34.5, 23, 55, "34hello"]

MyList[2]

- 12
- True
- **34.5**
- 23

Which of these function calls will create a list of numbers from 2 to 10 (inclusive) in Python 3?

- list(range(2,10))
- range(2,10)
- range(2,11)
- **list(range(2,11))**

You have a list:

l1 = [20, 'a', 21, 'b', 22, 'c', 23, 'd', 24, 'e', 25, 'f']

Which of the following slices would NOT return the following list?

['a', 'b', 'c', 'd', 'e', 'f']

- l1[1::2]
- l1[1:12:2]
- **l1[-1:-12:-2]**
- l1[-11::2]

What is the critical difference between slicing lists and arrays?

- Slicing the list creates the copy of the list, slicing an array creates two copies of the array every time for the safety seasons
- Slicing of the list creates a view (not a copy), slicing of the array creates a copy of the it
- **Slicing of the list creates a copy, slicing of the array creates a view (not a copy) of the it**
- There is no difference

You have a 2x2 matrix called M which looks like this:

23 | 41

55 | 77

How do you access the number 41 in this matrix?

- M[41]
- M[1,2]
- M[,2]
- **M[0,1]**

You have the following dictionary:

dict1 = {"Joe":"Mazda", "Jack":"Toyota", "Jill":"Lexus"}

How do you access Jill's type of car from here?

- **dict1[“Jill”]**
- dict1[Jill]
- dict1[“Lexus”]
- dict1[2]

What will the following code return?

```
import numpy as np
v1 = [1, 22, 33]
v2 = ["Hi", "there", "friend"]
v3 = [11, 3, 2016]
D  = np.array([v1,v2,v3])
D[2,1]
```

- 3
- “there”
- **‘3’**
- You cannot put lists of different types into one matrix

You have created matrix A:

```
import numpy as np
A = np.array([[1,2,3],[10,20,30],[100,200,300]])
```

Which of the following slices will return the third column? I.e. [3, 30, 300]

- **A[:,2]**
- A[2,:]
- A[2,2]
- A[2]

You have defined the a function called myfunc:

```
def myfunc(list1=[1,2,3,4,5]):
    print(list1)
```

What will the following code output when executed?

```
myfunc(['Hello','Python'])
```

- [1,2,3,4,5]
- [“Hello”, “Python”, 3,4,5]
- **[“Hello”,”Python”]**
- There is an error in the code

How many times will the following code output the message "Abra Kadabra" ?

```
counter = 0
while counter < 4:
    print("Abra Kadabra")
    counter = counter + 1
```

- 1
- **4**
- 5
- Infinity


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THANK YOU
45%