Python Numeric Types

- There are **three numeric types** in Python
  - int
  - float
  - complex

```
x=1    # int
y=2.8  # float
z=2+3j   # complex
```

Python Numeric Types

- You can convert from one type to another with the **int(), float(), and complex()**
-

```
#convert from int to float:
a = float(x)
#convert from float to int:
b = int(y)
#convert from int to complex:
c = complex(x)
```

```
x=1    # int
y=2.8  # float
```

(1+0j)

Could you guess what is the value of a , b and c from these statements?

Python Numeric Types

- Specify a float data type onto an int variable, this can be done with casting

```
x = int(1.3)   # x will be 1
y = int(3.5) # y will be 3
```

- The int data type can be converted to float:

```
x = float(1)     # x will be 1.0
y = float(2.8)   # y will be 2.8
```

Python Numeric Types

- Convert a string data type to a numeric variable

```
y = int("3") # y will be 3
w = float("4.2") # w will be 4.2
z = float("3")   # z will be 3.0
```

Python Numeric Types

- Convert a numeric data type to a string variable

```
y = str(2)    # y will be '2'
z = str(3.0)  # z will be '3.0'
w=str(2+3j)  # w will be '(2+3j) '
```