

```
In [5]: #Que 1
import numpy as np
def machine_precision(data_type):
    return np.finfo(data_type).eps
data_list=[np.longdouble,np.float16,np.float32,np.float64,np.float128]
for i in data_list:
    print("The machine precision of ",i,"is ", machine_precision(i))
"""
According to https://numpy.org/doc/stable/reference/constants.html numpy
"""
```

```
The machine precision of <class 'numpy.float128'> is 1.0842021724
85504434e-19
The machine precision of <class 'numpy.float16'> is 0.000977
The machine precision of <class 'numpy.float32'> is 1.1920929e-07
The machine precision of <class 'numpy.float64'> is 2.22044604925
0313e-16
The machine precision of <class 'numpy.float128'> is 1.0842021724
85504434e-19
```

```
Out[5]: '\nAccording to https://numpy.org/doc/stable/reference/constants.ht
ml (https://numpy.org/doc/stable/reference/constants.html) numpy do
es follow IEEE 754 standard\n'
```

```
In [4]: #Que 2
print("The machine precsion of float data type in python is",machine_
```

```
The machine precsion of float data type in python is 2.220446049250
313e-16
```

```
In [ ]:
```