

```
[7]: # Q1
v = ["Harshvardhan", [1, 2, 3, 4, "ABCD"], 1.25, (1, 2, 3)]
v
```

```
[7]: ['Harshvardhan', [1, 2, 3, 4, 'ABCD'], 1.25, (1, 2, 3)]
```

```
[ ]: #Q2
i)Str
ii)Str
iii)List
iv)float
```

```
[ ]: #Q3
i)used to divide  $4/2 = 2$ 
ii)used to find remainder  $4\%2 = 0$ 
iii)used to divide and takes floor value  $10//3 = 3$ 
iv)used to find the power  $2**2 = 4$ 
```

```
: #Q4
l = [1,2,3,4.4,"Harshvardhan",3+7j,'a','b',9,10]
for i in l:
    print(i)
```

```
1
2
3
4.4
Harshvardhan
(3+7j)
a
b
9
10
```

```
: #Q5
A = 10
B = 2
count = 0
while A%B==0 :
    A = A/B
    count=count+1
print(count)
```

```
1
```

```
: #Q6
l=[i for i in range(1,26)]
for i in l :
    if i % 3 == 0 :
        print(i)
```

```
3
6
9
12
15
18
21
24
```

```
#Q7
#Mutable : it means that we can change their value after assigning
#Immutable : we cannot change their value once assigned
l = [1,2,3,4,6]
l[3]='Riya'
l
```

```
[1, 2, 3, 'Riya', 6]
```

```
#but we cannot do this with Strings
s ="Harshvardhan"
s[4]='v'
s
```

```
-----
TypeError                                Traceback (most recent call last)
Cell In[16], line 3
      1 #but we cannot do this with Strings
      2 s ="Harshvardhan"
----> 3 s[4]='v'
      4 s

TypeError: 'str' object does not support item assignment
```

```
s
```

```
'Harshvardhan'
```