

Question Time

```
x = [10,20,30,40]
N = len(x)
for k in range(N):
    x[k] = x[N-k-1]
```

What is the final value of x?

- A. [40,30,20,10] B. [40,30,30,40]
C. [4,3,2,1] D. [3,2,1,0] E. None of These

List Methods: `extend`

Before: **x:**

0	1	2	3
3	5	1	7

```
t = [100, 200]  
x.extend(t)
```

After: **x:**

0	1	2	3	4	5
3	5	1	7	100	200

Use `extend` when you want to "glue" one list onto the end of another list.

Question Time

```
x = [10,20]
for i in range(5):
    x.extend(x)
m = len(x)
print m
```

What is the output?

A. None B. 10 C. 12 D. 32 E. 64

Question Time

```
x = [10,20,30,40]
s = 0
for v in x:
    s += v
```

What is the output?

A. Error—illegal B. 100

Question Time

```
s = 0
for k in range(3):
    for j in range(k,4):
        s += 1
print s
```

Output?

- A. 12 B. 9 C. 6 D. None of These

Question Time

```
x = [10,20,30,40]
```

```
y = x
```

```
x[2] = y[3]
```

```
print x[2],y[2]
```

What is the output?

- A. 40,30 B. 30,40 C. 40,40
D. None of These

Question Time

```
def: fA(x) :  
    y = x[1:]  
    y.append(x[0])  
if __name__ == "__main__":  
    z = [10,20,30]  
    fA(z)  
    print z[0],z[1],z[2]
```

Output?

A. 10 20 30

B. 20 30 10

C. None of these

Question Time

```
def: fB(x):  
    y = x[1:]  
    y.append(x[0])  
    return y  
if __name__ == "__main__":  
    z = [10,20,30]  
    w = fB(z)  
    print w[0],w[1],w[2]
```

Output?

A. 10 20 30

B. 20 30 10

C. None of these

Question Time

```
>>> D = { 'A' : [1,2,3] , 'B' : [4,5] }
>>> ???
>>> D
{ 'A' : [1,2,3,5] , 'B' : [4,5] }
```

Which of these choices for ??? does the trick?

- A. `D['A'] = D['A'] .append (B[1])`
- B. `D['A'] = D['A'] .append (D['B'] [1])`
- C. `D['A'] .append (D['B'] [1])`
- D. `D[0] .append (D[1] [1])`
- E. None of these

Question Time

```
class Point1(object):  
    def __init__(self,x,y):  
        self.x = x  
        self.y = y  
        self.d = sqrt(x**2 + y**2)  
  
P = Point1(3,4)  
P.x = 0  
print P.d
```

Output?

A. 5

B. 4

C. Neither of these

Question Time

```
class Point(object):  
    def __init__(self,x,y):  
        self.x = x  
        self.y = y
```

```
A = 3; B = 5
```

```
P = Point(A,B)
```

```
print P.A
```

Output?

- A. 3 B. (3 ,5) C. Neither of these

Question Time

```
class Point(object):
    def __init__(self,x,y):
        self.x = x
        self.y = y
-----
x = [Point(0,0)]
for k in range(1,4):
    Q = Point(x[k-1].y+1,x[k-1].x+2)
    x.append(Q)
```

What point is represented by x[3] ?

- A. (3,6) B. (5,4) C. (4,5) D. None of these

Question Time

```
class C(object):  
    def __init__(self,x,y):  
        self.u = x  
        self.v = y
```

```
-----  
A = C([1,2],[3,4])  
A.u = A.v  
A.u[1] = 5  
print A.v[0],A.v[1]
```

Output?

A. 1 2 B. 3 4 C. 1 5 D. 3 5 E. None of these