

Question 1:

Guess the output of this program:

```
1. for pos in range(0, 12, 3):
2.     print(pos, end=' ')
```

0 3 6 9 12

0 3 6 9

0 1 2 3 4 5 6 7 8 9 10 11

Question 2:

Guess the output of this program:

```
1. for pos in range(-10, -20, -3):
2.     print(pos, end=' ')
```

-10 -13 -16 -19

-10 -13 -16

Empty Output

Question 3:

For input -127532, the output is:

```
1. num = int(input())
2. mystr = str(abs(num))
3. sum = 0
4.
5. for char in mystr:
6.     sum += int(char)
7. print(sum)
```

17

20

Error

12

25

Question 4:

For input -127532 this program outputs:

```
1. num = int(input())
2. mystr = str(abs(num))
3. pos = 4
4.
5. for idx, char in enumerate(mystr):
6.     if idx == len(mystr) - pos:
7.         print(char)
8.         break
```

1

2

7 (default from start 0)

5

3

Question 5:

Guess the output of this program:

```
1. n = 6
2. a, b = 0, 1
3.
4. for sep in range(n):
5.     c = a+b
6.     a = b
7.     b = c
8.
9. print(c)
10.
```

8

13

21

34

Compute Fibonacci sequence

Question 6:

Guess the output of this program:

```
1. steps = 0
2. mystr = 'hello123uj'
3.
4. for char in mystr:
5.     if '0' <= char <= '9':
6.         break
7.     steps += 1
8.
9. print(steps)
10.
```

Error

3

4

5

6

7

8

It stops once find a digit in a string. Observe the condition to check a digit

Question 7:

Guess the output of this program:

```
1. sum = 0
2. for pos in range(3, 6, 2):
3.     sum += pos
4. print(pos)
```

4

5

6

7

8

9

Question 8:

Guess the output of this program:

```
1. for pos in range(3, 6, 2):
2.     pos *= 10
3. print(pos)
```

Error

Undefined Behaviour

50

Question 9:

These 2 blocks are the same logic?

```
1. for i in range(20):
2.     status = i % 3 == 0 or i % 5 == 0 or i % 7 == 0
3.     if status:
4.         print(i)
```

```
1. for i in range(20):
2.     status = i % 3 != 0 and i % 5 != 0 and i % 7 != 0
3.     if not status:
4.         print(i)
```

True

False

$\text{not } (i \% 3 == 0 \text{ or } i \% 5 == 0 \text{ or } i \% 7 == 0) \implies i \% 3 \neq 0 \text{ and } i \% 5 \neq 0 \text{ and } i \% 7 \neq 0$.
That is: we not every term and switch every or to and. If you can't get it, skip it.