

You have been given the following piece of code. Assume that x has already been declared.

```
if x > 5:  
    x = x*3  
if x > 15:  
    x = 0  
print(x)
```

☐ Output will always be equal to 0

☐

For  $x > 5$ , the output is thrice the initial value of x

☒

For  $x < 5$ , the output is the initial value of x

☐

For  $x > 5$  and  $x < 15$ , output is thrice the initial value of x

2.

## Knock Knock

Which of the following code snippets from the options given will give the output as below?

```
Knock Knock  
Who's There?  
No One
```

### Options:

A.

```
if True:  
    print("Knock Knock")  
if False:  
    print("Who's There?")  
else:  
    print("No One")
```

B.

```
if True:  
    print("Knock Knock")  
if True:  
    print("Who's There?")  
else:  
    print("No One")
```

C.

```
if True:  
    print("Knock Knock")  
if True:  
    print("Who's There?")  
if True:  
    print("No One")
```

D.

```
if False:  
    print("Knock Knock")  
if False:  
    print("Who's There?")  
if False:  
    print("No One")
```

☒ A

☐ B

☐ C

☐ D

3.

What should be the input for value of `num` in the code below so that the value of `num` becomes `1` at the end of the execution of the while loop?

```
num = int(input())
while num > 1:
    num = num // 3
print(num)
```

☐ 2

☒ 89

☐ 72

☐ 8

Who's There?

What should be the input for the value of `num` in the code below so that the output of this code is `Hello, this is Raj`?

```
num = int(input())
val = 0
for i in range(2, num):
    val = val + i
if val > 10:
    print('Hello, this is Raj')
else:
    print('There is no one')
```

☐ 5

☐ 3

☒ 6

4.

5. Write a function to find the sum of all the prime numbers less than or equal to a given positive integer `n`. The function should take an integer `n` as input and return the sum as an integer.

```
def prime(num):
```

```
    for i in range(2, num//2+1):
```

```

        if num % i == 0:
            return False

    return True

```

```

def sum_of_primes(n):
    # write your code here
    prime_lst = []

    for num in range(2,n+1):
        if prime(num):
            prime_lst.append(num)

    # return prime_lst
    return sum(prime_lst)

```

## Sum of Digits (II)

### Problem Description

Take **T** (number of test cases) as input.

For each test case, take integer **A** as input and print the sum of digits of that number.

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6.

```
T = int(input())
```

```

while T>0:
    A = int(input())
    sum = 0
    while A != 0:
        rem = A%10
        sum += rem
        A = A//10
    print(sum)

```

```
T -= 1
```

