1. What is the output of the following if statement

a, b = 12, 5

if a + b:

print('True')

else:

print('False')

**Ans: True**

1. Given the nested if-else structure below, what will be the value of x after code execution completes

x = 0

a = 0

b = -5

if a > 0:

if b < 0:

x = x + 5

elif a > 5:

x = x + 4

else:

x = x + 3

else:

x = x + 2

print(x)

**Ans: 2**

1. Given the nested if-else below, what will be the value x when the code executed successfully

x = 0

a = 5

b = 5

if a > 0:

if b < 0:

x = x + 5

elif a > 5:

x = x + 4

else:

x = x + 3

else:

x = x + 2

print(x)

**Ans: 3**

1. A school has following rules for grading system:  
   a. Below 25 - F  
   b. 25 to 45 - E  
   c. 45 to 50 - D  
   d. 50 to 60 - C  
   e. 60 to 80 - B  
   f. Above 80 - A  
   Ask user to enter marks and print the corresponding grade.

**Ans: m=int(input("enter marks"))**

**if(m<25):**

**print(" Grade F")**

**elif(m>=25 and m<45):**

**print(" Grade E")**

**elif(m>=45 and m<50):**

**print(" Grade D")**

**elif(m>=50 and m<60):**

**print(" Grade C")**

**elif(m>=60 and m<80):**

**print(" Grade B")**

**elif(m>=80): #else:**

**print(" Grade A")**

**OUTPUT:**

**enter marks 80**

**Grade A**

1. A shop will give discount of 10% if the cost of purchased quantity is more than 1000.  
   Ask user for quantity  
   Suppose, one unit will cost 100.  
   Judge and print total cost for user.
2. Write a program to print absolute value of a number entered by user. E.g.-  
   INPUT: 1        OUTPUT: 1  
   INPUT: -1        OUTPUT: 1
3. Write a Python program that accepts a string and calculate the number of digits and letters.

Sample Data : Python 3.2  
Expected Output :  
Letters 6  
Digits 2

1. Write a Python program to check whether an alphabet is a vowel or consonant.   
   Expected Output:

Input a letter of the alphabet: k

k is a consonant.

1. Write a Python program to check a triangle is equilateral, isosceles or scalene. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
   Note :  
   An equilateral triangle is a triangle in which all three sides are equal.  
   A scalene triangle is a triangle that has three unequal sides.  
   An isosceles triangle is a triangle with (at least) two equal sides.  
   Expected Output:

Input lengths of the triangle sides:

x: 6

y: 8

z: 12

Scalene triangle

1. Write an If elif else condition for finding the largest number in 3 numbers.