1. What is the output of the following if statement

a, b = 12, 5

if a + b:

print('True')

else:

print('False')

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)

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)

3

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.

x=int(input("Enter the marks"))

if x < 25:

print("F")

elif x == 25 or x < 45:

print("E")

elif x == 45 or x < 50:

print("D")

elif x == 50 or x < 60:

print("C")

elif x == 60 or x < 80:

print("B")

else:

print("A")

Enter the marks90

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.

x=int(input("Enter the quantity"))

cost=x\*100

if cost>1000:

discount=(cost\*10)/100

final\_cost=cost -discount

print(final\_cost)

else:

print(cost)

Enter the quantity:11

990

1. Write a program to print absolute value of a number entered by user. E.g.-  
   INPUT: 1        OUTPUT: 1  
   INPUT: -1        OUTPUT: 1

x=int(input("Enter a number"))

if(x< 0):

x = x \*(-1)

print(x)

else:

print(x)

Enter a number -1

1

1. 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

x="Python 3.2"

letter=0

digit=0

others=0

for value in x:

if value.isalpha():

letter=letter+1

elif value.isnumeric():

digit=digit+1

else:

others=others+1

print("letter:",letter,"digit:",digit,"spaces:",others)

letter: 6 digit: 2 spaces: 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.

ch = input("Enter a character: ")

if(ch=='A' or ch=='a' or ch=='E' or ch =='e' or ch=='I'

or ch=='i' or ch=='O' or ch=='o' or ch=='U' or ch=='u'):

print(ch, "is a Vowel")

else:

print(ch, "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

x= 6

y=8

z=12

if x==y==z:

print("equilateral triangle")

if x==y or y==z or x==z:

print("isosceles triangle")

else:

print("scalene triangle")

scalene triangle

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

a=10

b=14

c=12

if( a>b) and (a>c):

print(a)

elif( b>a) and (b>c):

print(b)

else:

print(c)

14