PROGRAM 1

```python
vowels = ("a", "e", "i", "o", "u", "A",
"E", "I", "O", "U")
alphabet = input("Enter the alphabet: ")
if alphabet in vowels:
    print("Alphabet is a Vowel. ")
else:
    print("Alphabet is a consonant. ")
```

OUTPUT:

```
Enter the alphabet: I
Alphabet is a Vowel.


Process finished with exit code 0
|
```

```
Enter the alphabet: a
Alphabet is a Vowel.


Process finished with exit code 0
```

PROGRAM 2

```python
print("Enter the length of the three
sides of a triangle ")
x = int(input("x:   "))
y = int(input("y:   "))
z = int(input("z:   "))
if x == y and y == z:
    print("Equilateral Triangle  ")
elif x == y or y == z:
    print("Isosceles triangle ")
else:
    print("Scalene triangle ")
```

OUTPUT:

```
Enter the length of the three sides of a triangle
x:   12
y:   13
z:   14
Scalene triangle
```

```
Enter the length of the three sides of a triangle
x:   12
y:   13
z:   13
Isosceles triangle
```

```
x:    12
y:    12
z:    12
Equilateral Triangle

Process finished with exit code 0
```

PROGRAM 3

```python
def multiplication(x, y):
    return x*y


def addition(x, y):
    return x+y


def subtraction(x, y):
    return x-y


def division(x, y):
    return x/y
```

```python
num1 = int(input("Enter number : "))
num2 = int(input("Enter second number : "))
print("For Addition         press 1")
print("For subtraction      press 2")
print("For multiplication   press 3")
print("For division         press 4")
choice = int(input("operation :"))
if choice == 1:
    print("Addition", addition(num1, num2))
elif choice == 2:
    print("Subtraction", subtraction(num1, num2))
elif choice == 3:
    print("Multiplication", multiplication(num1, num2))
elif choice == 4:
    print("Division", division(num1, num2))
```

OUTPUT

```
Enter number : 10
Enter second number : 15
For Addition          press 1
For subtraction       press 2
For multiplication    press 3
For division          press 4
operation :1
Addition 25
```

```
Enter number : 25
Enter second number : 10
For Addition          press 1
For subtraction       press 2
For multiplication    press 3
For division          press 4
operation :3
Multiplication 250
```

PROGRAM 4

```python
def largest_odd(x, y):
    if x % 2 != 0 and x > y:
        print("x=", x, "is the largest
```

```python
odd function ")
    elif x % 2 != 0 and y > x:
        print("y=", y, " is the largest
odd function ")
    elif x % 2 == 0 and y % 2 != 0:
        print("X is the greatest odd as y
is even")
    elif y % 2 == 0 and x % 2 != 0:
        print("Y is greatest odd as X is
even")
    else:
        print("Both of them is odd")
    return x, y


print("Enter first number")
x = int(input("X: "))
print("Enter second number")
y = int(input("Y: "))
largest_odd(x, y)
```
Output

```
Enter first number
X:  20
Enter second number
Y:  11|
X is the greatest odd as y is even
```

```
Enter first number

X:  20

Enter second number

Y:  10

Both of them are even
```

```
Enter first number

X:  7

Enter second number

Y:  11

y= 11   is the largest odd function
```