1) write program to add two numbers?

Sol:
```
a = 6
b = 2
c = a + b
print(c)
```

2) write a program to swap two variable without using a third variable?

Sol
```
a = 5
b = 10
a,b = b,a
print(a)
print(b)
```

```
a = 5
b = 10
a + a + b
b = a - b
a = a - b
print(a,b)
```

$$5 + 10 = 1$$
$$a = 15 - 10$$
$$b = 5$$

3) program to calculate area of given circle by given radius?

Sol
```
R = 5
A = 3.14 × 5 × 5
print(A)
```

```
n = int(input("Enter the radius"))
```

4) program to find the largest three numbers?

Sol:
```
a,b,c = 10, 20, 30
if (a>b) and (a>c):
        print(a)
if (b>c:
        print(b)
else:
        print(c)
```

5) program to check if a number is even(or) odd?

sol:
```
a = 5
if (a.1.2 == 0):
    print ("even")
else:
    print ("odd")
```

6) write a program to find the factorial of a given number?

sol:
```
a = 5
i = 1
p = 1
for i in range (1, a+1, 1):
    p*=i
    print(P)
```

while (a<i)
i+=1

7) write a program to reverse a given number?

sol:
```
n = 543
S = 0
while (n>0)
    r = n.1.10
    S = S*10 + r
    n = n//10
    print (S)
```

8) program to check a given number is prime?

Sol:
```
n = 6
c = 0
for i in range (8, n):
    if (n % i == 0)
        c = c + 1
        break
if (c == 0):
    print ("prime")
else:
    print (" not prime")
```

9) program to find sum of digits?

Sol:
```
n = 127
s = 0
while (n > 0):
    r = n % 10
    s = s + r
    n = n // 10
print (s)
```

10) Program to check if a given string is palindrome?

Sol:
```
s = "madam"
if s == s [: -1]:
    print ("It is palindrome")
else:
    print ("It is not palindrome")
```

11) Armstrong Number:

$n = 153$ $t = n$

$S = 0$ $S = n$

while $(n > 0)$

    $r = n \% 10$

    $S = S + r * r * r$

    $n = n // 10$

    print (S)

$r = 3$

$S = 0 + 3 * 3 * 3$

$S = 27$

$n = 15$