In [1]:
```
from math import sqrt
print("Quadratic function : (a * x^2) + b*x + c")
a = float(input("a: "))
b = float(input("b: "))
c = float(input("c: "))
r = b**2 - 4*a*c
if r > 0:
    num_roots = 2
    x1 = (((-b) + sqrt(r))/(2*a))
    x2 = (((-b) - sqrt(r))/(2*a))
    print("There are 2 roots: %f and %f" % (x1, x2))
elif r == 0:
    num_roots = 1
    x = (-b) / 2*a
    print("There is one root: ", x)
else:
    num_roots = 0
    print("No roots, discriminant < 0.")
    exit()
```

```
Quadratic function : (a * x^2) + b*x + c
a: 5
b: 20
c: 10
There are 2 roots: -0.585786 and -3.414214
```

In [2]:
```
rows = int(input("Enter number of rows "))
for i in range(0, rows):
    for j in range(0, i + 1):
        print("*", end=' ')

    print("\r")
```

```
Enter number of rows 5
*
* *
* * *
* * * *
* * * * *
```

In [3]:
```
num = 7
for i in range(1, 11):
   print(num, 'x', i, '=', num*i)
```

```
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
```

In [4]:
```
nterms = int(input("How many terms? "))
n1, n2 = 0, 1
count = 0
if nterms <= 0:
   print("Please enter a positive integer")
elif nterms == 1:
   print("Fibonacci sequence upto",nterms,":")
   print(n1)
else:
   print("Fibonacci sequence:")
   while count < nterms:
       print(n1)
       nth = n1 + n2
       n1 = n2
       n2 = nth
       count += 1
```

```
How many terms? 7
Fibonacci sequence:
0
1
1
2
3
5
8
```

In [5]:
```
def convertToBinary(n):
   if n > 1:
       convertToBinary(n//2)
   print(n % 2,end = '')
dec = 34
convertToBinary(dec)
print()
```

```
100010
```