

Ex:1

```
wide = 5
```

```
space = wide // 2
```

```
x = 1
```

```
while space > 0:
```

```
    print((space*" ")+(x*"**"))
```

```
    space -= 1
```

```
    x +=2
```

```
while space <= wide//2:
```

```
    print((space*" ")+(x*"**"))
```

```
    space += 1
```

```
    x -=2
```

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```
1
2 wide = 5
3 space = wide // 2
4 x = 1
5 while space > 0:
6     print((space*" ")+(x*"**"))
7     space -= 1
8     x +=2
9
→ 10 while space <= wide//2:
11     print((space*" ")+(x*"**"))
12     space += 1
13     x -=2
```

[Edit this code](#)

→ line that just executed
→ next line to execute

Done running (25 steps)

[Customize visualization](#)

Print output (drag lower right corner to resize)

```
*
***
*****
***
*
```

Frames Objects

Global frame

wide	5
space	3
x	-1

Ex:2

```
while(1):
```

```
    try:
```

```
        wide = int(input("Please Enter a Odd:\n"))
```

```
        break
```

```
    except:
```

```
        wide = input("Error Please Enter a Odd:\n")
```

```
while(1):
```

```
    try:
```

```
        star = int(input("Please Enter Number Of Star:\n"))
```

```
        break
```

```
    except:
```

```
        star = input("Error Please Enter Number Of Star:\n")
```

```
for x in range(star+1):
```

```
    space = wide // 2
```

```
    x = 1
```

```
    while space > 0:
```

```
        print((space*" ")+(x*"**"))
```

```
        space -= 1
```

```
        x +=2
```

```
    while space <= wide//2:
```

```
        print((space*" ")+(x*"**"))
```

```
        space += 1
```

```
        x -=2
```

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```

1 while(1):
2     try:
3         wide = int(input("Please Enter a Odd:\n"))
4         break
5     except:
6         wide = input("Error Please Enter a Odd:\n")
7
8 while(1):
9     try:
10        star = int(input("Please Enter Number Of Star"))
11        break
12    except:
13        star = input("Error Please Enter Number Of Star")
14
15
16 for x in range(star+1):
17
18     space = wide // 2
19     x = 1
20     while space > 0:

```

[Edit this code](#)

→ line that just executed
→ next line to execute

Done running (159 steps)

[Customize visualization](#)

Print output (drag lower right corner to resize)

```

Please Enter a Odd:
5
Please Enter Number Of Star:
5
*
***
*****
***
*
***
*****
*
*
***
*****
*
*
***
*****
*
*
***
*****
*
*
***
*****
*
*
***
*****
*
*
***
*****
*

```

Frames

Objects

Global frame	
wide	5
star	5
x	-1
space	3

Ex:3

```
Number = int(input("Please Enter Number:\n"))
```

```
if Number > 1:
```

```
    for i in range(2,Number):
```

```
        if(Number % i) == 0:
```

```
            print(Number,"Is not prime number")
```

```
        else:
```

```
            print(Number,"Is prime number")
```

```
else:
```

```
    print(Number,"Is not prime number")
```

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```
1 Number = int(input("Please Enter Number:\n"))
2 if Number > 1:
→ 3     for i in range(2,Number):
4         if(Number % i) == 0:
5             print(Number,"Is not prime number")
6         else:
7             print(Number,"Is prime number")
8 else:
9     print(Number,"Is not prime number")
```

[Edit this code](#)

→ line that just executed
→ next line to execute

Done running (6 steps)

[Customize visualization](#)

Print output (drag lower right corner to resize)

```
Please Enter Number:
3
3 Is prime number
```

Frames Objects

Global frame	
Number	3
i	2

Ex:4

```
X = int(input("Please Enter Number:\n"))
```

```
def Cal(x):
```

```
    if x < 2:
```

```
        return 1
```

```
    else:
```

```
        return 1 / x + Cal(x-1)
```

```
print("Harmonic step = ",x)
```

```
print("Ans = ",Cal(x))
```

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```
1 x = int(input("Please Enter Number:\n"))
2
3 def Cal(x):
4     if x < 2:
5         return 1
6     else:
7         return 1 / x + Cal(x-1)
8
9 print("Harmonic step = ",x)
10 print("Ans = ",Cal(x))
```

[Edit this code](#)

→ line that just executed
→ next line to execute

Step 20 of 24

[Customize visualization](#)

Print output (drag lower right corner to resize)

```
Please Enter Number:
5
Harmonic step = 5
```

Frames

Global frame

x 5

Cal

Cal

x 5

Cal

x 4

Cal

x 3

Cal

x 2

Cal

x 1

Return value 1

Objects

function Cal(x)

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
([known limitations](#))

```
1 x = int(input("Please Enter Number:\n"))
2
3 def Cal(x):
4     if x < 2:
5         return 1
6     else:
7         return 1 / x + Cal(x-1)
8
9 print("Harmonic step = ",x)
→ 10 print("Ans = ",Cal(x))
```

[Edit this code](#)

→ line that just executed
→ next line to execute

[Customize visualization](#)

Done running (24 steps)

Print output (drag lower right corner to resize)

```
Please Enter Number:
5
Harmonic step = 5
Ans = 2.2833333333333333
```

Frames Objects

Frames	Objects
Global frame	
x 5	function Cal(x)
Cal	