

```
1 """
2 WAP to print the following pattern
3     1
4     121
5     12321
6 """
7
8 space = int(input('Enter Step Size: '))
9 c = '1'
10 while space >= 1:
11     print(' ' * space, int(c) ** 2)
12     c += '1'
13     space -= 1
14
```

```
1 # WAP to count the number of words, vowels and  
spaces  
2  
3 phrase = input('Enter the Sentence: ')  
4 vowel = space = 0  
5 words = len(phrase.split(' '))  
6  
7 for ch in phrase:  
8     if ch == ' ':  
9         space += 1  
10  
11     if ch in 'AEIOUaeiou':  
12         vowel += 1  
13  
14 print('There %s Words, %s vowels and %s spaces'  
      % (words, vowel, space))  
15
```

```
1 # WAP to print a diamond shape in python
2
3 def Diamond(rows):
4     n = 0
5     for i in range(1, rows + 1):
6         # loop to print spaces
7         for j in range(1, (rows - i) + 1):
8             print(end=" ")
9
10        # loop to print star
11        while n != (2 * i - 1):
12            print("*", end="")
13            n = n + 1
14        n = 0
15        print()
16
17    k = 1
18    n = 1
19    for i in range(1, rows):
20        # loop to print spaces
21        for j in range(1, k + 1):
22            print(end=" ")
23        k = k + 1
24
25        # loop to print star
26        while n <= (2 * (rows - i) - 1):
27            print("*", end="")
28            n = n + 1
29        n = 1
30        print()
31
32
33 rows = int(input("Enter Rows: "))
34 Diamond(rows)
35
```

```
1  """
2  WAP to print the following pattern if a certain
   word is entered
3  H e l l o
4   H e l l
5    H e l
6     H e
7      H
8  """
9
10 sen = input('Enter the word: ')
11 length = len(sen)
12 space = 0
13
14 for i in range(length, 0, -1):
15     print(' '*space, end='')
16
17     for ch in sen[:i]:
18         print(ch, end=' ')
19     print()
20     space += 1
21
```

```
1 # Program to find the small n largest word in a  
2 string  
3 txt = input('Enter a Sentence: ').split()  
4 len_list = []  
5  
6 for w in txt:  
7     len_list.append(len(w))  
8  
9 big_word = len_list.index(max(len_list))  
10 small_word = len_list.index(min(len_list))  
11  
12 print('Biggest word is: ', txt[big_word])  
13 print('Smallest word is: ', txt[small_word])  
14
```