

```
1 function count = factors(n)
2     count=0;
3     for i=1:floor(sqrt(n))%we need to iterate only till square root
4         if mod(n,i)==0%the number in current iteration
5             count=count+1;
6             if n/i ~= i%the other number, for eg if 6 is factor of 42, then other fac
7                 %here we are checking if it is not a square root and 2
8                 %different numbers
9                 count=count+1;
10            end
11        end
12    end
13 end
```

```
>> factors(10)
ans =
     4
>> factors(2)
ans =
     2
>> factors(9)
ans =
     3
>> factors(100)
ans =
     9
```