Square Root

I/P: x=4
O/P: 2
I/P: x=14
O/P: 3
I/P: x=25
O/P: 5

```
def squareroot(x):
    i=1
    while i*i<=x:
        i+=1
    return i-1
```

Naive Approach

```
def sqrootfloor(x):
    low=1
    high=x
    ans=-1
    while low<=high:
        mid=(low+high)//2
        msq=mid*mid
        if msq==x:
            return mid
        elif msq>x:
            high=mid-1
        else:
            low=mid+1
            ans=mid
    return ans
```

Efficient solution using Binary Search