

```
def sol(n,k):  
    c=0  
    for i in range(1,n+1,k):  
        if n-k<k:  
            return -1  
        else:  
            c+=1  
    return c  
for _ in range(int(input())):  
    n,k=map(int,input().split())  
    print(sol(n,k))
```