

# Algorithms 10

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30/04/18

**1**

```
x = 1  
for in range(k/2)  
x = x * n  
x = x * x
```

```
if (k%2! = 0)  
x = x * n  
return x
```

Time complexity:  $O(\log k)$   
Space complexity:  $x + n + k$