

consider as our  $m$  and  $n$ .

Now consider two integers ~~as~~  $a$  and  $b$ , we know from our lecture notes that succ-left -

$$\text{succ}(b) + a == \text{succ}(b+a)$$

and  $\text{succ}(a) + b == \text{succ}(b+a)$

Therefore, just like before, we can equate

$$\text{succ}(b) + a == \text{succ}(a) + b$$

Therefore, using these theorems we have proved  
that  $m+n == n+m$