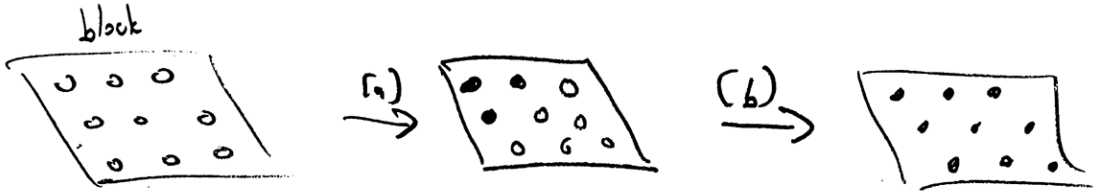


Use (a) and (b) to light up each block

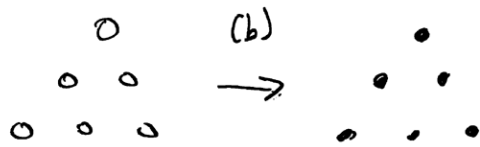


This perfectly lights up all remaining lights.

Because  $n=2$  works, and if  $n=3k+2$  works then  $n=3k+5$  works, all  $n \equiv 2 \pmod{3}$  work for  $n \in \mathbb{Z}^+$ , by induction.

Case #3:  $n \equiv 0 \pmod{3}$

As in case #2, we use a base case, but with  $n=3$ .



Assume  $n=3k$  works, we will show  $n=3k+3$  works, with  $k \in \mathbb{Z}^+$ .

