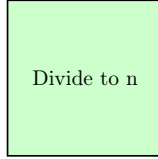


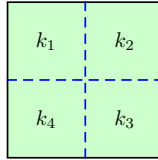
Step 1



$$V_n = An - B$$

$$V_1 = 1; V_2 = 4$$

Step 2



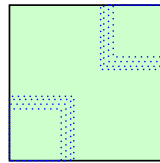
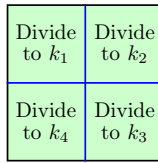
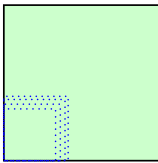
$$\sum_{i=1}^4 k_i = n$$

$\exists i : k_i = n$

else

$\exists i : k_i + k_{i+2} = n$

Step 3



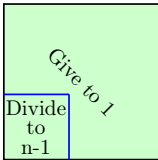
$$V_n \geq V_{k_1} + V_{k_2} + V_{k_3} + V_{k_4}$$

$$\Rightarrow 3B \geq 3A$$

select smallest L-shape

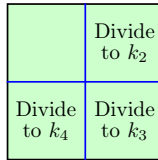
select smallest 8-shape

Step 4



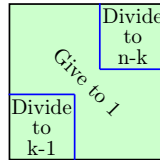
$$V_n \geq 3 + V_{n-1}$$

$$\Rightarrow A \geq 3$$



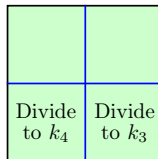
$$V_n \geq 1 + V_{k_2} + V_{k_3} + V_{k_4}$$

$$\Rightarrow 2B \geq 2A + 1$$



$$V_n \geq 2 + V_{n-k} + V_k$$

$$\Rightarrow B \geq 2$$



$$V_n \geq 1 + 1 + V_{k_3} + V_{k_4}$$

$$\Rightarrow B \geq A + 2$$

INPUT: A square;

$n$  agents that value it as  $V_n \geq 6n - 8$ .

OUTPUT: Each agent can get a square with value  $\geq 1$ .

VERIFIED