$$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$$

$$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$$

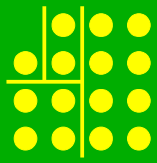
$1+2^1=2^2-1$

$$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$$

$1+2^1+2^2=2^3-1$

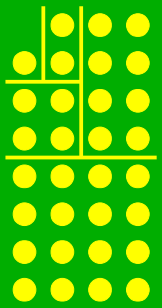
$$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$$

$1+2^1+2^2+2^3=2^4-1$



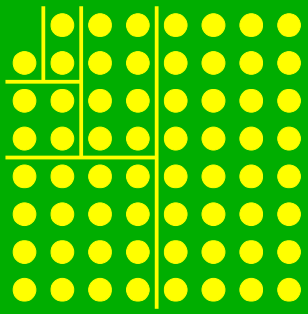
$$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$$

$1+2^1+2^2+2^3+2^4=2^5-1$



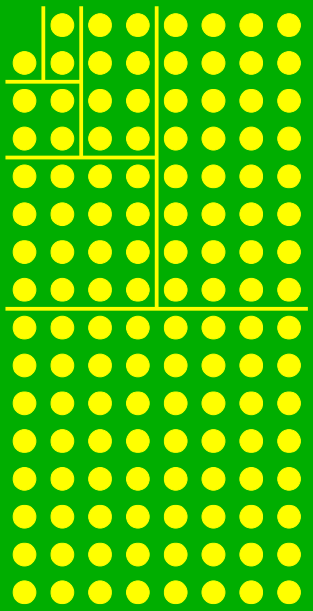
$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$

$1+2^1+2^2+2^3+2^4+2^5=2^6-1$



$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$

$1+2^1+2^2+2^3+2^4+2^5+2^6=2^7-1$



$1 + 2 + 4 + \ldots + 2^n = 2^{n+1} - 1$

$1+2^1+2^2+2^3+2^4+2^5+2^6+2^7=2^8-1$