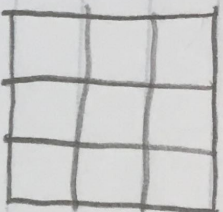
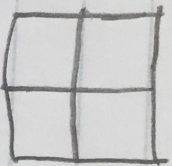


$$N = \boxed{1}$$

$$\boxed{2}$$

$$\boxed{3}$$

$$Y = \boxed{}$$



1

4

9

16

$$\boxed{Y = n^2}$$

The asymptotic space complexity is polynomial in nature because ~~as~~ the grid expands in a square which inherently yields a polynomial growth