① A → order 3 square matrix such that $|A| = 2$, then $|adj(adj(adj A))|$ is -

formula:

$$|adj(adj(adj A)(adj \underbrace{---}_{k \text{ times}} (adj A)))))| = |A|^{(n-1)^k}$$

n → order of matrix

Hence,

$$|adj(adj(adj A))| = |A|^{(2)^3} \quad \begin{Bmatrix} n=3 \\ k=3 \end{Bmatrix}$$

$$= (2)^8$$

$$= 256$$ Ans.