If α and β are the roots of the equation $x^2 - x + 1 = 0$, then $\alpha^{2009} + \beta^{2009} =$

(1) –2   (2) –1   (3) 1   (4) 2

Roots of equation $x^2 - x + 1 = 0$ ar

$\alpha = -\omega, \quad \beta = -\omega^2,$

$\alpha^{2009} + \beta^{2009} = (-\omega)^{2009} + (-\omega^2)^{2009}$

$= -(\omega^2 + \omega) = 1$