Quadratic Equations : Worksheet -9

1. If α, β are the roots of $x^2 + x + 1 = 0$ then $\alpha^2 + \beta^2 =$ [ ]

   a) 0 b) 1 c) 2 d) – 1

2. If α, β are the roots of $ax^2 + bx + c = 0$ then $\frac{\alpha^3 + \beta^3}{\alpha^{-3} + \beta^{-3}} =$ [ ]

   a) a^3 / c^3 b) c^3 / a^3 c) a^3 / b^3 d) b^3 / a^3

3. If α, β are the roots of $x^2 - px + q = 0$ then $\alpha^3\beta^2 + \alpha^2\beta^3 =$ [ ]

   a) p^2q b) pq^2 c) pq d) $-pq^2$

4. If one root of $x^2 - 5x + k = 0$ is 2, other root is [ ]

   a) 3 b) 4 c) 5 d) 6