

(EMC01-0001E)

- If $(x - a)$ is a factor of the polynomial $x^6 - ax^5 + x^4 - ax^3 + 3x + a - 2$, then the value of a is
 - 1
 - $\frac{1}{2}$
 - $\frac{1}{3}$
 - 2

(EMC01-0003M)

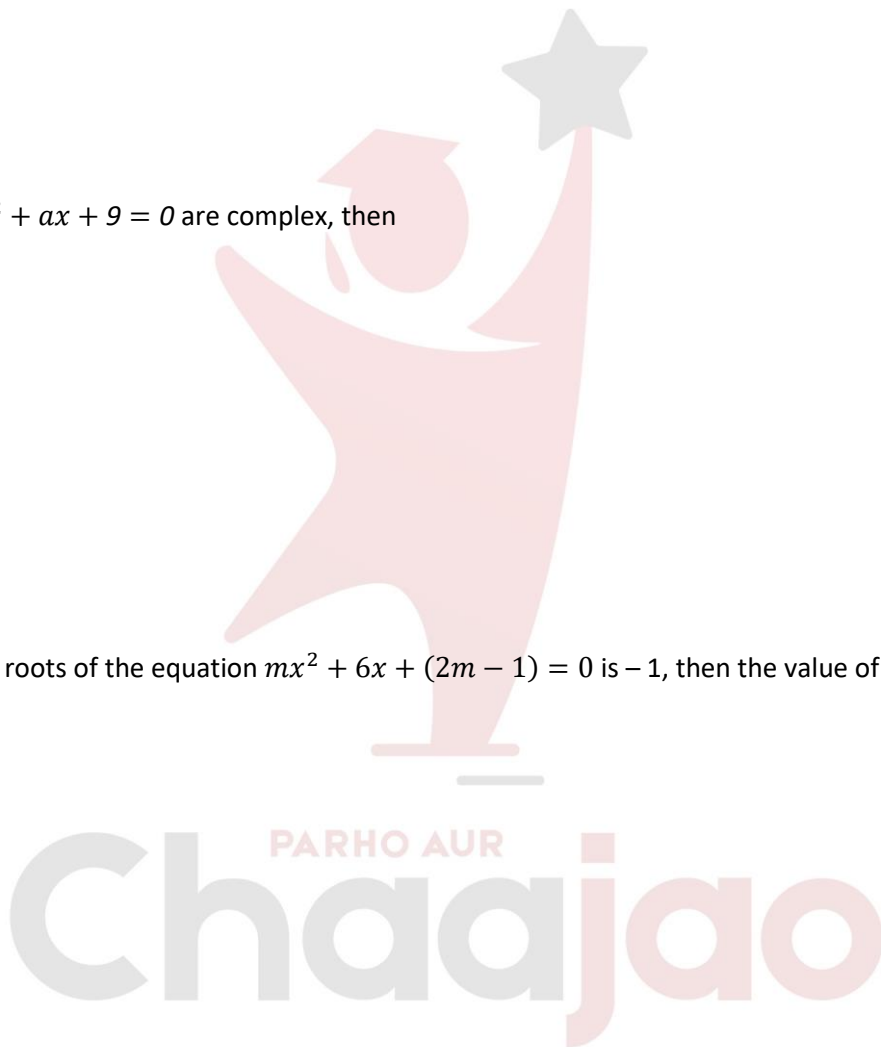
- If the roots of $x^2 + ax + 9 = 0$ are complex, then
 - $a < -6$
 - $a < 6$
 - $|a| < 6$
 - $|a| > 6$

(EMC01-0005E)

- If the product of roots of the equation $mx^2 + 6x + (2m - 1) = 0$ is -1 , then the value of m is
 - 1
 - $-\frac{1}{3}$
 - $\frac{1}{3}$
 - 1

(EMC01-0007M)

- One root of the equation $5x^2 + 13x + m = 0$ is reciprocal of the other if m equals
 - 0
 - 5
 - $\frac{1}{6}$
 - 6



(EMC01-0009E)

- If α and β are the roots of $4x^2 + 3x + 7 = 0$, then the value of $\frac{1}{\alpha} + \frac{1}{\beta}$ is
 - A) $-\frac{3}{7}$
 - B) $-\frac{3}{4}$
 - C) $\frac{3}{7}$
 - D) $\frac{4}{7}$

(EMC01-0011H)

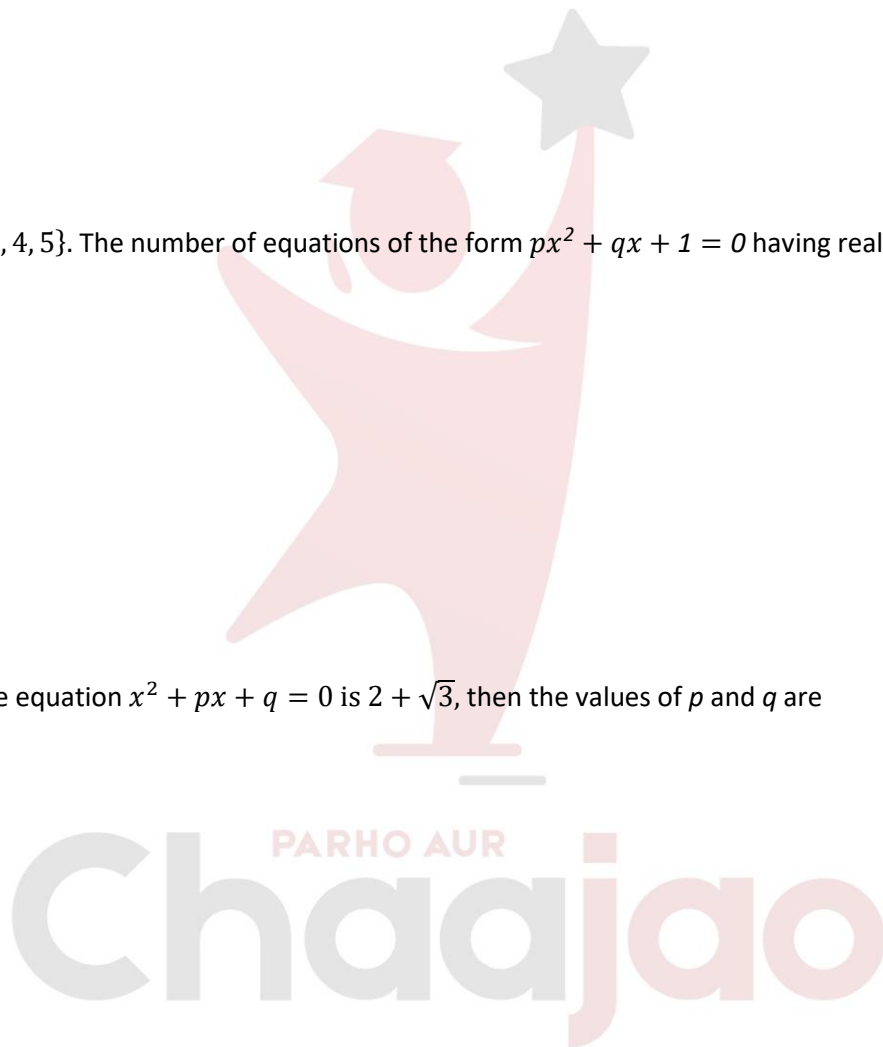
- Let $p, q \in \{1, 2, 3, 4, 5\}$. The number of equations of the form $px^2 + qx + 1 = 0$ having real roots, is
 - A) 7
 - B) 8
 - C) 9
 - D) 12

(EMC01-0013M)

- If one root of the equation $x^2 + px + q = 0$ is $2 + \sqrt{3}$, then the values of p and q are
 - A) $-2, -\sqrt{3}$
 - B) $-4, 1$
 - C) $2, \sqrt{3}$
 - D) $4, -1$

(EMC01-0015M)

- If $(1 - p)$ is a root of the quadratic equation $x^2 + px + (1 - p) = 0$, then its roots are
 - A) $-1, 2$
 - B) $-1, 0$
 - C) $-1, 1$
 - D) $0, 1$



(EMC01-0017M)

- The solution set of $\sqrt{2x - 6} + \sqrt{x + 4} = 5$ is
 - {5}
 - {0, 5}
 - {1, 3}
 - {3, 5}

(EMC01-0019M)

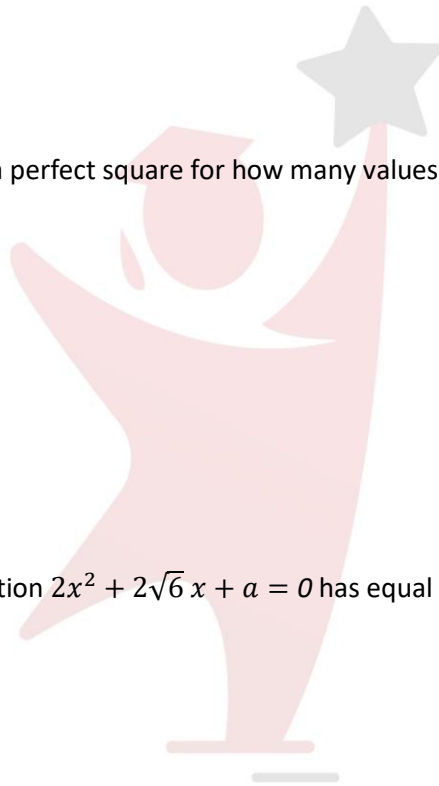
- $x^2 + x + 1 + 2k(x^2 - x - 1)$ is a perfect square for how many values of k ?
 - 0
 - 1
 - 2
 - 3

(EMC01-0021E)

- The value of a for which the equation $2x^2 + 2\sqrt{6}x + a = 0$ has equal roots, is
 - $\sqrt{2}$
 - $\sqrt{3}$
 - 2
 - 3

(EMC01-0023H)

- One root of $mx^2 - 14x + 8 = 0$ is 6 times the other root. Then m is equal to
 - 1
 - 2
 - 3
 - None of these



PARHO AUR
ChaaJao

(EMC01-0025M)

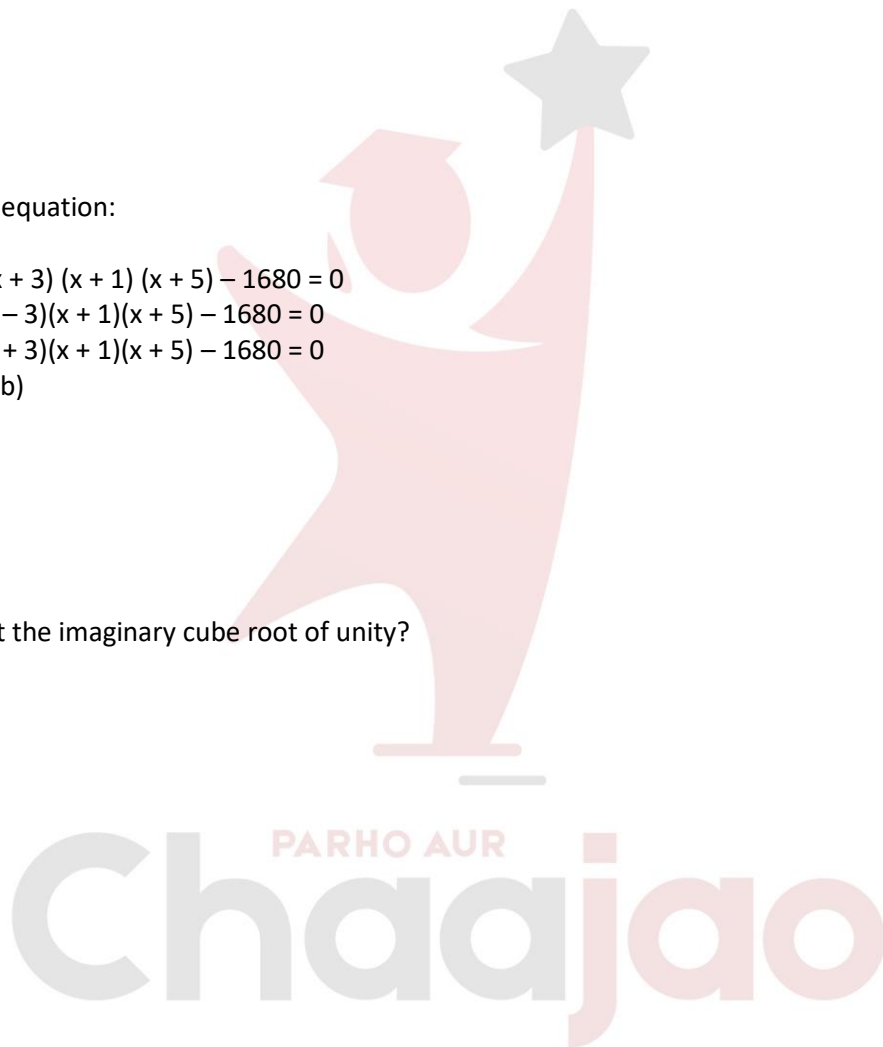
- If $\{\alpha, \beta\}$ is the solution set of $2x^2 - 3x + 5 = 0$, then the equation with solution set $\{\alpha^2 + 1, \beta^2 + 1\}$ is
 - $4x^2 - 3x - 18 = 0$
 - $4x^2 - 3x + 18 = 0$
 - $4x^2 - 3x + 18 = 0$
 - $4x^2 + 3x + 18 = 0$

(EMC01-0027E)

- $x = 9$ is a root of equation:
 - $(x - 7)(x + 3)(x + 1)(x + 5) - 1680 = 0$
 - $(x - 7)(x - 3)(x + 1)(x + 5) - 1680 = 0$
 - $(x + 7)(x + 3)(x + 1)(x + 5) - 1680 = 0$
 - (a) and (b)

(EMC01-0029E)

- Which one is not the imaginary cube root of unity?
 - 1
 - $\frac{-1 + \sqrt{3}i}{2}$
 - $\frac{-1 - \sqrt{3}i}{2}$
 - All of these



Answers Key	
1	B
2	C
3	C
4	B
5	A
6	D
7	B
8	B
9	A
10	C
11	D
12	C
13	D
14	B
15	A

PARHO AUR
Chaaajao