

If the equations  $x^2 + 2x + 3 = 0$  and  $ax^2 + bx + c = 0$ ,  $a, b, c \in \mathbb{R}$ , have a common root, then  $a : b : c$  is :

[JEE-MAIN-2013]

(1)  $1 : 2 : 3$

(2)  $3 : 2 : 1$

(3)  $1 : 3 : 2$

(4)  $3 : 1 : 2$

$$x^2 + 2x + 3 = 0$$

$$D < 0$$

$\therefore ax^2 + bx + c = 0$  has

both roots common

$$\therefore a : b : c = 1 : 2 : 3$$