Q) The real values of x and y for which the equation is $(x + iy)(2 - 3i) = 4 + i$ is satisfied, are

Solution:

Equation $(x + iy)(2 - 3i) = 4 + i$

$(2x + 3y) + i(-3x + 2y) = 4 + i$

Equating real and imaginary parts, we get

$2x + 3y = 4$ ……(i)

$-3x + 2y = 1$ ……(ii)

From (i) and (ii), we get

$x = 5 / 13, y = 14 / 13$