

Question #9549 The sum of two numbers is 16, and the sum of their squares is 146. Find the numbers.

Solution. Let these numbers be x, y . So, $x + y = 16, x^2 + y^2 = 146$. Hence $2xy = 256 - 146 = 110$ or $xy = 55$. Next, x and y are the roots of $t^2 - 16t + 55 = 0$, they are $x = 11$ and $y = 5$ or vice versa.

Answer (5, 11) or (11, 5).