Question #9915

Solve on the interval [0, 2pi): 2cos^2(x)-3cos(x)+1=0

Solution

$2\cos^2 x - 3\cos x + 1 = 0$

$\cos x = t;$

$t \in [-1;1]$

$2t^2 - 3t + 1 = 0$

$D = 1; \sqrt{D} = 1;$

$t_1 = 1; t_2 = \frac{1}{2};$

$$\left[\begin{array}{l} \cos x = 1 \\ \cos x = \frac{1}{2} \end{array}\right.$$

$x_1 = 0;$

$x_2 = \frac{\pi}{3}.$

Answer: $x_1 = 0, x_2 = \frac{\pi}{3}.$

http://www.AssignmentExpert.com