

Precalculus, Section 7.3, #86  
Trigonometric Equations

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Use a graphing utility to solve the equation. Express the solution(s) rounded to two decimal places<sup>1</sup>

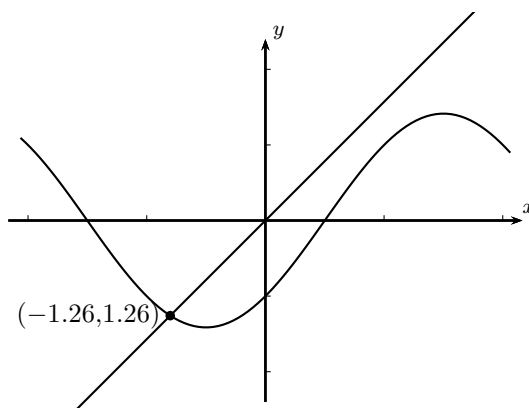
$$\sin(x) - \cos(x) = x$$

Using the TI-84 (or whatever graphing calculator is available), we graph

$$y_1 = \sin(x) - \cos(x)$$

$$y_2 = x$$

to get



and then use the `calc:intersect` function on the TI-84, we find  $x = -1.258728$ ,  $y = -1.258728$ , so the solution is  $x \approx -1.26$ .

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<sup>1</sup>Sullivan, *Precalculus: Enhanced with Graphing Utilities*, p. 465, #86.