PRACTICE QUIZ 16

ADRIAN PĂCURAR

Time: 10 min
Time to beat: ? min

Problem 1. Find the slope of the tangent line to the curve $x = y^2 - 4y$ at the points where the curve crosses the y axis.

Problem 2. Find dy/dx given that $y = \frac{u^2-1}{u^2+1}$ and $u = \sqrt{x^2+2}$.

Problem 3. A point moves along the curve $y = x^3 - 3x + 5$ so that $x = \frac{1}{2}\sqrt{t} + 3$, where t represents time. At what rate is y changing when $t = 4$?

Problem 4. If $y = x^2 - 4x$ and $x = \sqrt{2t^2+1}$, find dy/dt when $t = \sqrt{2}$.