PRACTICE QUIZ 8

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Time: 16 min
Time to beat: ? min

Problem 1. Find dy/dx by implicit differentiation for $5x^2y^2 + 4x^2 + 4y^5 = -4$.

Problem 2. Find dy/dx by implicit differentiation for $3x \cos y + 5y \cos x = 1$.

Problem 3. Find y'' by implicit differentiation if $2x^8 + 2xy + 5y^8 = 1$.

Problem 4. A particle moves according to $s(t) = t^3 - 9t^2 + 24t + 2$, $t \geq 0$, where t is measured in seconds and s in feet. What is the total distanc this particle traveled during the first 6 seconds? (Hint: this is not the same as the displacement!)