## PRACTICE QUIZ 17

## ADRIAN PĂCURAR

Time: 10 min

Time to beat: ? min

**Problem 1.** Find  $\frac{dy}{dx}$  given that  $x^2y - xy^2 + x^2 + y^2 = 0$ .

**Problem 2.** Find  $\frac{dy}{dx}$  if  $x^2 + y^2 = xy + 3$ .

**Problem 3.** Given that  $x^3y + xy^3 = 2$ , find  $\frac{dy}{dx}$  at the point (1,1).

**Problem 4.** Find the second derivative y'' for x + xy + y = 2.