## QUIZ 4 - MATH 151 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the derivative f'(x) of the function  $f(x) = \sin(x \cos x)$ . Please, write explicitly which rule you are applying at each step of your computation.

2. Use implicit differentiation to find an equation for the tangent line to the ellipse  $x^2 + xy + y^2 = 3$ at the point (1, 1). 3. Two bikers start biking from the same point. One biker bikes east at 12 km/hr and the other bikes north at 16 km/hr. How fast is the distance between the two bikers changing after 15 minutes?