

**Math 151****Quiz 5**

Justify all answers with neat and organized work. Clearly indicate your answers.  
10 points possible.

1. (5 pts.) If  $f(x) = 2 \cos x + \sin^2 x$ , find  $f'(x)$  and  $f''(x)$ . You do not have to simplify your answers.

2. (5 pts.) If  $x^3y + xy^3 = 2$ , find  $dy/dx$  by implicit differentiation.