

**Last name:** \_\_\_\_\_

**First name:** \_\_\_\_\_

**Section:** \_\_\_\_\_

Question:	1	2	Total
Points:	10	10	20
Score:			

**Instructions:** You must answer all the questions below and give your solutions to the TA at the end of the recitation. Write your solutions directly on the worksheet. Late worksheet will not be accepted.

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QUESTION 1 (10 pts)

Compute the derivative of the following functions:

(a) (5 points)  $f(x) = x^2 \sec(x)$ .

(b) (5 points)  $f(x) = \frac{\sqrt{x^2 + x}}{\sin(x)}$ .



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QUESTION 2

(10 pts)

Isolate  $y$  and find an expression for  $y'$  if

$$x^2 + y^2 = 1.$$

