

Math 165: Honors Calculus I
Quiz 10 *Dec. 2, 1999*

Name: _____

1. Give a precise statement of the CHAIN RULE.

2. Find the equation of the line tangent to the curve defined by

$$\sin(\pi xy) = \cos(\pi(x - y))$$

at the point $(2, 1/2)$.

3. Douglas and Grape roads intersect perpendicularly. At 1 p.m. a red car is .4 miles north of the intersection travelling south on Grape at 35 mph. At the same moment, a blue car is .3 miles east of the intersection on Douglas travelling west at 25 mph. Determine how fast the distance between the cars is changing at 1 p.m.