

ESP Quiz 8 (Kouba)

Please PRINT your name here : \_\_\_\_\_

This quiz is due next Tuesday at the beginning of ESP.

1.) (15 pts.) Find an equation of the line perpendicular to the graph of  $(x + y)^3 + xy^2 = 8$  at  $x = 0$ .

2.) (15 pts.) Determine  $y' = \frac{dy}{dx}$  if  $\sin(x^2y) + \tan(3y) = 7$ .

3.) (15 pts.) The surface area of a cube is changing at the rate of  $10 \text{ cm}^2/\text{sec}$ . when an edge of the cube is  $5 \text{ cm}$ . At what rate is the volume of the cube changing when an edge of the cube is  $5 \text{ cm}$ ?