



M161Ex2F08	Name:	
6	Use the chain rule to find the derivative $y'$ . a) $f(x) = (25 - x^2)^4$  Ans: _____	b) $f(x) = \sec^2(x^3)$  Ans: _____
7.	One side of a rectangular lot borders the bank of a river. If 800 ft of fence are available for the other three sides, what dimensions yield the maximum area?          Ans: _____	
8.	The area of a circular oil spill spreads at a rate of 2 km/hr. How fast is the radius $r$ increasing when $r = 3$ km?          Ans: _____	
9	The position of a particle in the interval $[1, 3]$ is given by $s(t) = 2t^2 - 3t + 1$ . a) Find the average velocity in this interval.       Ans: _____	b) Find a “ $c$ ” satisfying the MVT on $I = [1, 3]$ .       Ans: _____
10.	Given $x^4 - 4x^2y^2 + y^4 = 1$ , use implicit differentiation to find the derivative $dy/dx$ .          Ans: _____	
	Extra Space.	