MA 227-103 — Summer 2017 — Dr. Clontz

Name:	Exercise T	ype:
J#:	Quiz	
Date: 2017 June 26		
Standard: This student is able to C06: ChainRule. Apply the multivariable Chain Rule to compute derivatives and find normal vectors.		Mark:
$4/4$ \star reat	tempt due on:	

Find an equation for the plane tangent to the graph of f(x,y)=4xy at the point $\langle 1,-2\rangle$.

MA 227-103 — Summer 2017 — Dr. Clontz

Name:	Exercise T	Type:
J#:	Quiz	
Date: 2017 June 26		
Standard: This student is able to S06: Lineariz. Compute the linearization of a two-variable real-valued function at a point and use it for approximation.		Mark:
3/3 * reat	tempt due on:	

Find the linearization L(x,y) for $f(x,y) = \sin(xy)$ at the point $\langle 3,0 \rangle$. Then use it to show that $f(2.99,0.01) \approx 0.03$.

MA 227-103 — Summer 2017 — Dr. Clontz

Name:	Exercise T	ype:
J#:	Quiz	
Date: 2017 June 26		
Standard: This student is able to S07: Optimiz. Use the first-derivative test and Lagrange multipliers to optimize a real-valued multivariable function.		Mark:
	tempt due on:	

Find the maximum value of the function $f(x,y)=3-x^2-y^2+2y$ on the closed and bounded half-disk $0\leq y\leq \sqrt{4-x^2}$.