## MA 227-103 — Summer 2017 — Dr. Clontz

Name:	Exercise Type:	
J#:	Quiz	
Date: <b>2017 June 19</b>		
Standard: This student is able to  C04: VectFuncSTNB. Compute and apply the arclength		Mark:
parameter and TNB frame for a vector function. $^{3/4}$	tompt due en	
3/4 * reat	tempt due on:	

Suppose the unit tangent and normal vectors for a parametrized curve are given by  $\mathbf{T} = \frac{1}{2} \langle \cos t - \sin t, \sqrt{2}, \cos t + \sin t \rangle$  and  $\mathbf{N} = \frac{1}{2} \langle -\sin t - \cos t, 0, -\sin t + \cos t \rangle$ . Find the binormal vector  $\mathbf{B}$  when  $t = \pi$ .

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Name:	Exercise T	Type:
J#:	Quiz	
Date: <b>2017 June 19</b>		
Standard: This student is able to  S05: MulivarFunc. Sketch and analyze the domain, level curves, and graph of a two-variable real-valued function.		Mark:
2/3 * reat	tempt due on:	

Graph  $f(x, y) = x^2 + y^2$ .

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Name:	Exercise T	'ype:
J#:	Quiz	
Date: <b>2017 June 19</b>		
Standard: This student is able to		Mark:
C05: MulivarCalc. Compute and apply the partial deriva	-	
tives, gradient, and directional derivatives of a multivariable		
real-valued function. $1/4$ * reat	tempt due on:	

Find  $\nabla g$  for  $g(x, y, z) = 3y^2e^z + 4xz$ .