

Name:
J#:
Date: 2017 June 20

Exercise Type:

Quiz

Standard: This student is able to... C04: VectFuncSTNB. Compute and apply the arclength parameter and TNB frame for a vector function. 4/4 ★ reattempt due on:	Mark: <hr style="border-top: 1px dashed black;"/>
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Sketch the curve parameterized by $\mathbf{r}(t) = \langle 4 + 2 \cos(t), -1 + 2 \sin(t) \rangle$. Compute \mathbf{T} and \mathbf{N} at the point $\langle 4, 1 \rangle$ where $t = \pi/2$, and add them to your sketch at that point.

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Standard: This student is able to...	Mark:
S05: MulivarFunc. Sketch and analyze the domain, level curves, and graph of a two-variable real-valued function.	
3/3	★ reattempt due on:

Sketch the domain of $g(x,y) = \sqrt{xy}$. Then plot the four level curves where $k = 0, 1, 2, 3$.

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Standard: This student is able to...	Mark:
C05: MulivarCalc. Compute and apply the partial derivatives, gradient, and directional derivatives of a multivariable real-valued function.	
2/4	★ reattempt due on:

Find the maximal value of the directional derivative for the function $f(x,y) = xe^y + y$ at the point $\langle 1, \ln 3 \rangle$, and the direction that yields this value.