MA 227-103 — Summer 2017 — Dr. Clontz

Name:	Exercise Type:	
J#:	\mathbf{Quiz}	
Date: 2017 June 13		
Standard: This student is able to C02: VectFunc. Model curves in Euclidean space with vector functions.		Mark:
4/4 * reatt	empt due on:	

Give a vector function parameterizing the circle with center $\langle 1,2 \rangle$ and passing through the point $\langle -2,6 \rangle$.

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Name:	Exercise Type:	
J#:	Quiz	
Date: 2017 June 13		
Standard: This student is able to C03: VectCalc. Compute and apply vector function limits		Mark:
derivatives, and integrals.	,	
3/4 * reat	tempt due on:	

Find $\int \mathbf{r}(t) dt$ where $\mathbf{r}(t) = \langle \cos(t), 6t^2, e^t \rangle$.

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Name:	Exercise Type:	
J#:	Quiz	
Date: 2017 June 13		
Standard: This student is able to S04: Kinematics. Compute and apply position, velocity, and acceleration vector functions.		Mark:
1/3 * reat	tempt due on:	

Recall that position in ideal projectile motion is given by $\mathbf{r}(t) = P_0 + \mathbf{v}_0 t - \frac{1}{2}g\hat{\jmath}t^2$ where P_0 is the initial position, \mathbf{v}_0 is initial velocity, and g is acceleration due to gravity.

Assume g=10 meters per second squared. Find the speed of a projectile after 3 seconds if it is launched from the ground with initial speed $20\sqrt{3}$ meters per second at an angle of $\pi/3$ radians.