Name:	
J#:	
Date: **2017 July 05**	

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
C04: IntParts. Use integration by parts.	
Extra1 ⋆ reattempt due on:	

Find $\int x^2 \cos(x)\, dx$.

Name:	Exercise Type (Cost):
J#:	**In-Class (1AP)**
Date: **2017 July 05**	

Standard: This student is able to...	Mark:
C07: WashShell. Use the washer or cylindrical shell method to express a volume of revolution as a definite integral.	
Extra1 ⋆ reattempt due on:	

Find a definite integral equal to the volume of the solid obtained by rotating the region bounded by $y = \sqrt{x}$ and $y = x$ around the y-axis.

Name:	
J#:	
Date: **2017 July 05**	

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
C09: Param. Parametrize planar curves and sketch parametrized curves.	
4/4 ⋆ reattempt due on:	

Consider the circle of radius 3 and center $(1, 1)$. Parametrize the clockwise-oriented circular arc starting at $(1, 4)$ and ending at $(4, 1)$.

Name:	Exercise Type (Cost):
J#:	**In-Class (1AP)**
Date: **2017 July 05**	

Standard: This student is able to... **S08: ParamAppl.** Parametrize a curve to find arclengths, surface areas, and slopes.	Mark:
3/3 ⋆ reattempt due on:	

The surface area obtained by rotating the curve parametrized by $x(t)$ and $y(t) \geq 0$ where $a \leq t \leq b$ around the x-axis is given by $2\pi \int_a^b y(t)\sqrt{(\frac{dx}{dt})^2 + (\frac{dy}{dt})^2}\, dt$. Give a definite integral equal to the conical surface area obtained by rotating the line segment connecting $(1, 0)$ and $(6, 2)$ around the x-axis.

Name:	
J#:	
Date: **2017 July 05**	

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
C10: Polar. Convert and sketch polar and Cartesian coordinates and equations.	
2/4 ⋆ reattempt due on:	

Convert the Cartesian coordinates $(3, -3\sqrt{3})$ to polar.

Name:	Exercise Type (Cost):
J#:	**In-Class (1AP)**
Date: **2017 July 05**	

Standard: This student is able to... **S09: PolarAppl.** Use polar coordinates to express an arclength or area as a definite integral.	Mark:
1/4 ⋆ reattempt due on:	

The area bounded by an outside curve with polar equation $r = R(\theta)$ and inside curve with polar equation $r = r(\theta)$ where $\alpha \leq \theta \leq \beta$ is given by $\frac{1}{2}\int_\alpha^\beta ((R(\theta))^2 - (r(\theta))^2)\,d\theta$. Give a definite integral equal to the area inside the cardioid $r = 2 + 2\cos\theta$ but outside the circle $r = 2$.