

Name:
J#:
Date: 2017 June 07

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to... C01: LogExpDerInt. Find derivatives and integrals involving logarithmic and exponential functions. 4/4	Mark: <hr/>
★ reattempt due on:	

Prove that $\int \frac{x^2 e^x + 4x}{x^2} dx = e^x + \ln(x^4) + C$.

Name:
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Exercise Type (Cost):
In-Class (1AP)

Standard: This student is able to... S01: LogExpPrf. Derive properties of the logarithmic and exponential functions from their definitions.	Mark:
3/3 ★ reattempt due on:	-----

Use $\frac{d}{dx}[\ln(x)] = \frac{1}{x}$ and $\ln(1) = 0$ to prove that $\ln(\frac{x^2}{4}) = 2\ln(x) - \ln(4)$.

Name:
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Date: 2017 June 06

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
C02: HypDerInt. Find derivatives and integrals involving hypberbolic functions.	
2/4	★ reattempt due on:

a) Find $\frac{d}{dx}[\sinh(2x) - \tanh(x)]$.

b) Find $\int (\cosh(x^2) \operatorname{sech}(x^2)) dx$.

Name:
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Date: 2017 June 06

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
S02: HypPrf. Prove hyperbolic function identities.	
1/3	★ reattempt due on:

Use the definitions

$$\sinh(x) = \frac{e^x - e^{-x}}{2} \quad \cosh(x) = \frac{e^x + e^{-x}}{2}$$

to prove that $\sinh^2(x) + \cosh^2(x) = \cosh(2x)$.