

Name:
J#:
Date: <b>2017 June 09</b>

Exercise Type (Cost):

**In-Class (1AP)**

Standard: This student is able to... <b>C02: HypDerInt.</b> Find derivatives and integrals involving hyperbolic functions.  4/4	Mark:  <hr/>
★ reattempt due on:	

Show that  $\int 4z \operatorname{sech}^2(z^2) dz = 2 \tanh(z^2) + C$ .

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Exercise Type (Cost):

**In-Class (1AP)**

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

Use the definitions

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

to prove that  $\frac{d}{dx}[\sinh(x)] = \cosh(x)$ .

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Standard: This student is able to... <b>C03: IntSub.</b> Use integration by substitution.	Mark:
2/4	★ reattempt due on:

Find  $\int \frac{z^2+1}{z^3+3z+7} dz$ .

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Standard: This student is able to...	Mark:
<b>S03: TrigId.</b> Integrate products of trigonometric functions by applying trigonometric identities.	
1/3	★ reattempt due on:

Find  $\int \sin^3 \theta \cos^2 \theta \, d\theta$ .