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|---------------------------|
| Name:                     |
| J#:                       |
| Date: <b>2017 June 08</b> |

Exercise Type (Cost):

**In-Class (1AP)**

|  |                     |
|--|---------------------|
| Standard: This student is able to...<br><b>C02: HypDerInt.</b> Find derivatives and integrals involving<br>hyperbolic functions. | Mark:               |
| 3/4  | ★ reattempt due on: |

a) Find  $\frac{d}{dx}[e^x \cosh(x)]$ .

b) Find  $\int (5 \sinh(x) + \tanh(\pi)) dx$ .

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Exercise Type (Cost):

**In-Class (1AP)**

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|---|---------------------|
| Standard: This student is able to...                      | Mark:               |
| <b>S02: HypPrf.</b> Prove hyperbolic function identities. |                     |
| 2/3   | ★ reattempt due on: |

Use the identity

$$\cosh^2(x) - \sinh^2(x) = 1$$

to prove the identity  $\coth^2(x) = 1 + \operatorname{csch}^2(x)$ .

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

|  |                              |
|--|------------------------------|
| Standard: This student is able to...<br><b>C03: IntSub.</b> Use integration by substitution. | Mark:                        |
| 1/4  | -----<br>★ reattempt due on: |

Find  $\int 120z(2z + 1)^4 dz$ .