**IB Math HL1 : Logarithmic Derivatives Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_**

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| **Warm UP:** If  and , then rewrite each expression in terms of *a* and *b*.1.  2.  |  |
| **Derivative using the properties of Logarithm**

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| ***Notes: The idea is to find***  *by* ***the properties of logarithm instead of the product rule and the quotient rule.*** **Example) Find**  (Differentiate with respect to x). |

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| Practice) **Find** . Show your work.

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| 1.
 | 1.
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| 1.
 | 1.
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| 1.
 | 1.
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| 1.
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