

QUIZ 4

Time: 15min

1. Derive the formula for $D_x(\sin^{-1}(x))$.

(Hint: Set $y = \sin^{-1}(x)$. Then $\sin(y) = x$. Differentiate both sides of the last equation, solve for y' , and use some trig. identities to write the answer in terms of x).

5 points.

2. Find $\int x \cosh(x^2 + 1) dx$.

5 points.

Bonus: Find $D_x \sinh^{-1}(x)$.

5 points.