(1) [5] Simplify $\sin(\arccos x)$. (Your final simplified answer should not contain any trigonometric or inverse trigonometric functions.)

(2) [5] Determine the derivative and simplify: $y = \sin^{-1}(e^x) + \cos^{-1}(e^x)$.

(3) [5]   Determine $f'(0)$ if $f(x) = x \sinh(x) - \cosh(x^2)$.