## Quiz 4

## Problem 1 Use the relation

$$\sin(z) = \frac{e^{iz} - e^{-iz}}{2i}$$

to show that  $\sin(z)$  is an antiderivative of  $\cos(z)$ .

## Problem 2 Compute the derivative of

$$\cosh(z^2)$$

by using properties of derivatives and complex exponentials.