

Exercise 1

Find the numerical value of each expression.

(a) $\sinh 0$

(b) $\cosh 0$

Solution**Part (a)**

Use the definition of hyperbolic sine listed on page 259.

$$\sinh 0 = \frac{e^0 - e^0}{2} = \frac{1 - 1}{2} = 0$$

Part (b)

Use the definition of hyperbolic cosine listed on page 259.

$$\cosh 0 = \frac{e^0 + e^0}{2} = \frac{1 + 1}{2} = 1$$