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$$5 - 2e^{-x} = 2e^x$$

גורם משותף

$$5 - \frac{2}{e^x} = 2e^x \quad / e^x$$

$$5e^x - 2 = 2e^{2x}$$

$$2t^2 - 5t + 2 = 0 \quad e^x = t \quad \text{מסל}$$

$$t = 2 \rightarrow e^x = 2 \rightarrow x = \ln 2$$

$$t = \frac{1}{2} \rightarrow e^x = \frac{1}{2} \rightarrow x = \ln \frac{1}{2}$$

$$\begin{aligned} S &= \left| \int_{\ln \frac{1}{2}}^{\ln 2} (2e^x - 5 + 2e^{-x}) dx \right| = \left| 2e^x - 5x - 2e^{-x} \right|_{\ln \frac{1}{2}}^{\ln 2} = \\ &= |(4 - 5\ln 2 - 1) - (1 - 5\ln \frac{1}{2} - 4)| = |6 - 5\ln 2 + 5\ln \frac{1}{2}| = \\ &= |6 - 5\ln 2 - 5\ln 2| = |6 - 10\ln 2| = 10\ln 2 - 6 \end{aligned}$$