

$$\textcircled{4} \quad \int \log x \, dx = \int \frac{\sin x}{\cos x} \, dx = \int \frac{1}{\cos x} \cdot \sin x \, dx =$$

$$= \left| \begin{array}{l} \cos x = \Delta \\ -\sin x \, dx = d\Delta \\ \sin x \, dx = -d\Delta \end{array} \right| = \int \frac{1}{\Delta} \cdot (-d\Delta) = - \int \frac{1}{\Delta} d\Delta =$$

$$= - \ln |\Delta| = \underline{\underline{- \ln |\cos x| + c}}$$