

$$\textcircled{8} \quad \int \frac{\cos x}{\sin x - \cos x} dx =$$

Vzorrec: \*

$$\int \frac{f'(x)}{f(x)} = \ln|f(x)| + c$$

$$= \int \frac{(\cos x + \sin x) - \sin x}{\sin x - \cos x} dx =$$

$$= \underbrace{\int \frac{\cos x + \sin x}{\sin x - \cos x} dx}_{\text{podle } *}$$

$$- \int \frac{(\sin x - \cos x) + \cos x}{\sin x - \cos x} dx =$$

$$= \ln|\sin x - \cos x| - \int \left(1 + \frac{\cos x}{\sin x - \cos x}\right) dx =$$

$$= \ln|\sin x - \cos x| - x - \int \frac{\cos x}{\sin x - \cos x} dx$$



$$\int \frac{\cos x}{\sin x - \cos x} dx = \ln|\sin x - \cos x| - x - \int \frac{\cos x}{\sin x - \cos x} dx$$

$$2 \int \frac{\cos x}{\sin x - \cos x} dx = \ln|\sin x - \cos x| - x$$

$$\int \frac{\cos x}{\sin x - \cos x} dx = \frac{1}{2} \ln|\sin x - \cos x| - \frac{1}{2} x + c$$


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