

Pr 23/3 d)

$$\sin y \cdot \cos x \, dy = \cos y \cdot \sin x \, dx, \quad y(0) = \frac{\pi}{4}$$

$$\int \frac{\sin y}{\cos y} \, dy = \int \frac{\sin x}{\cos x} \, dx$$

$$-\ln |\cos y| = -\ln |\cos x| + C$$

$$\frac{1}{|\cos y|} = C \cdot \frac{1}{|\cos x|}$$

$$\frac{1}{\cos y} = K \cdot \frac{1}{\cos x}$$

$$\underline{K \cdot \cos y = \cos x}$$

Počáteční podmínka:  $y(0) = \frac{\pi}{4}$

$$K \cdot \cos \frac{\pi}{4} = \cos 0$$

$$K \cdot \frac{\sqrt{2}}{2} = 1$$

$$\underline{K = \sqrt{2}}$$

Rěšení:  $\underline{\underline{\sqrt{2} \cdot \cos y = \cos x}}$