

BRUDNOPIS - ANALIZA II, 2020

1. BRUDNOPIS



Franiu.

$$\begin{aligned}\int_0^{\pi/2} f(\cos x) dx &= [x = \arccos t, dx = -\frac{1}{\sqrt{1-t^2}} dt] = \\ &= -\int_1^0 \frac{f(t)}{\sqrt{1-t^2}} dt = \int_0^1 \frac{f(t)}{\sqrt{1-t^2}} dt \\ \int_0^{\pi/2} f(\sin x) dx &= [x = \arcsin t, dx = \frac{1}{\sqrt{1-t^2}} dt] = \\ &= \int_0^1 \frac{f(t)}{\sqrt{1-t^2}} dt\end{aligned}$$