31.47

$$\boxed{\int_0^{\frac{\pi}{2}} f(\eta\mu x)\,dx} = \int_0^{\frac{\pi}{2}} f\left(\sigma\upsilon\nu\left(\frac{\pi}{2}-x\right)\right)dx$$

θέτουμε $y=\frac{\pi}{2}-x \Rightarrow dy=-dx$

για $x=0 \Rightarrow y=\frac{\pi}{2}-0=\frac{\pi}{2}$

για $x=\frac{\pi}{2} \Rightarrow y=\frac{\pi}{2}-\frac{\pi}{2}=0$

$$= -\int_{\frac{\pi}{2}}^{0} f(\sigma\upsilon\nu y)\,dy =$$

$$= \int_0^{\frac{\pi}{2}} f(\sigma\upsilon\nu y)\,dy = \boxed{\int_0^{\frac{\pi}{2}} f(\sigma\upsilon\nu x)\,dx}$$