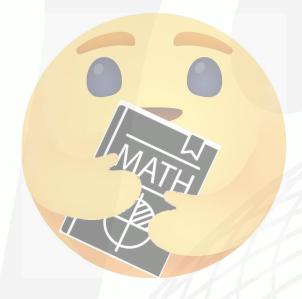
Calcular 
$$I = \int_0^{\frac{\pi}{6}} \tan^2 2x \ dx$$
.

Resolução:

$$I = \int_0^{\frac{\pi}{6}} \left[ (\sec^2 2x) - 1 \right] dx = \left( \frac{\tan 2x}{2} - x \right) \Big|_0^{\frac{\pi}{6}} = \boxed{\frac{\sqrt{3}}{2} - \frac{\pi}{6}}$$



Documento compilado em Thursday  $13^{\rm th}$  March, 2025, 20:29, tempo no servidor.

 $\'ultima vers\~ao do documento (podem haver correç\~oes e/ou aprimoramentos): "bit.ly/mathematicalramblings\_public".$ 

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