Obter a primitiva de $f(x) = \left(\sec \dfrac{\pi x}{2}\right)\left(\tan \dfrac{\pi x}{2}\right)$.

$$f(x) = \frac{\sin \dfrac{\pi x}{2}}{\cos^2 \dfrac{\pi x}{2}}$$

Seja $u = \cos \dfrac{\pi x}{2}$, $du = -\dfrac{\pi}{2} \sin \dfrac{\pi x}{2}\ dx$.

$$\int f(x)\ dx \ = \ -\frac{2}{\pi} \int \frac{du}{u^2} \ = \ \frac{2}{\pi u} + c = \boxed{\frac{2 \sec \dfrac{\pi x}{2}}{\pi} + c}$$

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