


$$\begin{aligned}
 \int \frac{x \sqrt{1-x^2} dx}{x \sqrt{1-x^2}} &\stackrel{?}{=} \sqrt{1-x^2} \\
 &\stackrel{?}{=} \frac{d}{dx} \sqrt{1-x^2} \\
 &= \frac{d}{dx} (1-x^2)^{1/2} \\
 &= \frac{1}{2} (1-x^2)^{-1/2} (-2x) \\
 &= \frac{1}{2} \frac{1}{\sqrt{1-x^2}} (-2x) \\
 &= -\frac{x}{\sqrt{1-x^2}} \quad \text{!!}
 \end{aligned}$$

$$\begin{aligned}
 \int \frac{x \sqrt{1-x^2} dx}{x \sqrt{1-x^2}} &\stackrel{?}{=} (\sin \theta)^5 (\cos \theta)^7 \\
 &\stackrel{?}{=} \frac{d}{dx} ((\sin \theta)^5 (\cos \theta)^7) \\
 &= \text{???} \quad \text{!!}
 \end{aligned}$$

 NÃO SABEMOS O JEITO CERTO DE FAZER ESTA DERIVADA!