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Proof Without Words: Integral of Sine Squared

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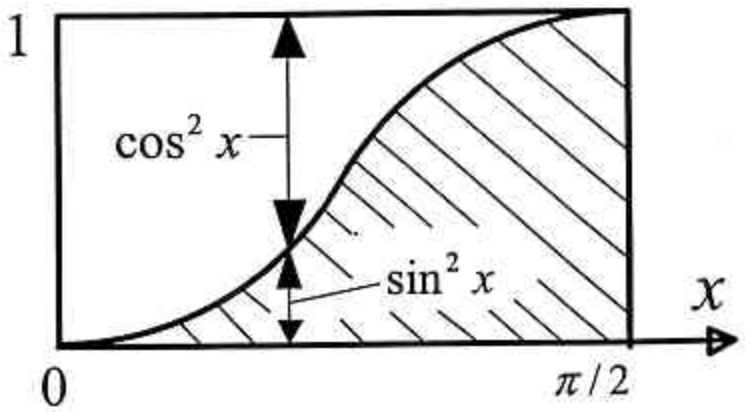
$$\sin^2 x + \cos^2 x = 1$$

$$\sin x = \cos\left(\frac{\pi}{2} - x\right)$$



$$\int_0^{\pi/2} \sin^2 x \, dx = \int_0^{\pi/2} \cos^2 x \, dx = \text{Area of Rectangle} / 2 = \pi / 4$$

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