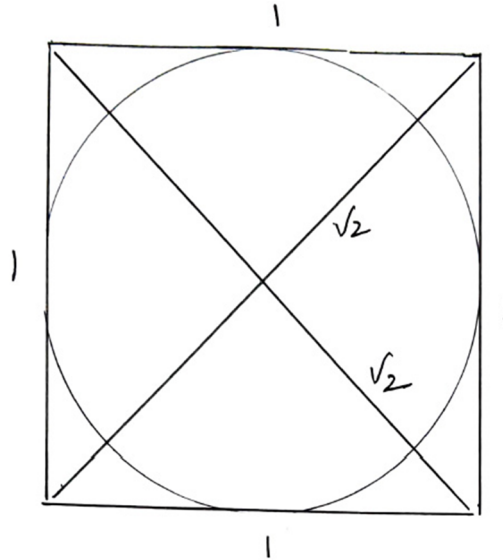


2533rd PAPER - SQUARE FINDS
THE REDDY π



Square side length = 1

Diagonal = $\sqrt{2}$

Perimeter = $4 \times 1 = 4$

Circle

Radius = $1/2$

Circumference = $2\pi r$

$$\cancel{2} \times \pi \times 1 / \cancel{2} = \pi$$

Statement:

Let, the sum of four times of side length and two times of diagonal multiplied $(\pi - 3)$ of circle, is equal to the area of the square.

$$(4 + 2\sqrt{2}) \times (\pi - 3) = 1$$

$$4\pi - 12 + 2\sqrt{2}\pi - 6\sqrt{2} = 1$$

$$4\pi = 1 + 12 - 2\sqrt{2}\pi + 6\sqrt{2}$$

$$4\pi = 13 - 2\sqrt{2}\pi + 6\sqrt{2}$$

$$(4 + 2\sqrt{2})\pi = 13 + 6\sqrt{2}$$

$$(16 - 8)\pi = (13 + 6\sqrt{2})(4 - 2\sqrt{2})$$

$$8\pi = 52 - 26\sqrt{2} + 24\sqrt{2} - 24$$

$$8\pi = 28 - 2\sqrt{2}$$

$$\pi = \frac{28 - 2\sqrt{2}}{8}$$

$$\pi = \frac{14 - \sqrt{2}}{4}$$

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1-Dec-2025