

Physics Recreations: A Mathematical Puzzle

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Are these steps correct? If not, where is the error? (Here π has the usual mathematical meaning: $\pi = 3.14159265\dots$)

$$x = (\pi + 3)/2 \quad (1)$$

$$2x = \pi + 3 \quad (2)$$

$$2x(\pi - 3) = (\pi + 3)(\pi - 3) \quad (3)$$

$$2\pi x - 6x = \pi^2 - 9 \quad (4)$$

$$9 - 6x = \pi^2 - 2\pi x \quad (5)$$

$$9 - 6x + x^2 = \pi^2 - 2\pi x + x^2 \quad (6)$$

$$(3 - x)^2 = (\pi - x)^2 \quad (7)$$

$$3 - x = \pi - x \quad (8)$$

$$\pi = 3 \quad (9)$$