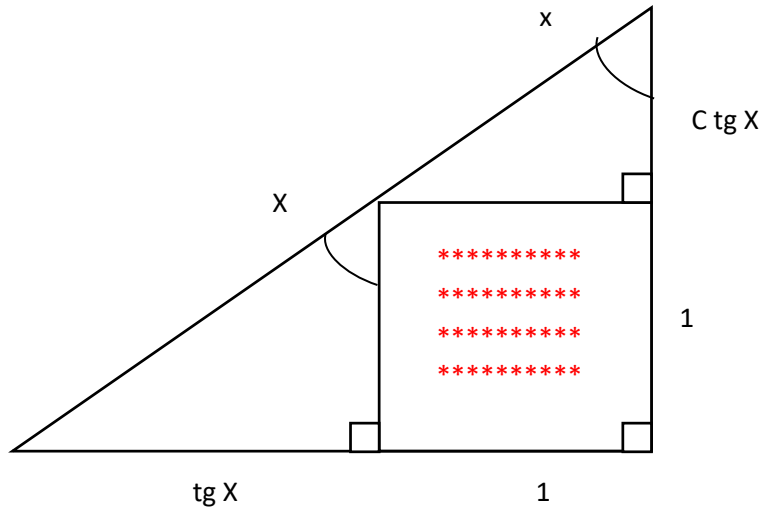


Square inside triangle = trigo



Given : The are of the square $1^2 = 1$

The are of the triangle , 3

Prove $\Rightarrow \text{tgx} = 2 + \sqrt{3}$

$$(1 + \text{ctgx}) \cdot (1 + \text{tgx}) = 6$$

$$2 + \text{tgx} + \text{ctgx} = 6$$

$$\text{tgx} + \text{ctgx} = 4$$

$a =$

$$a + \frac{1}{a} = 4$$

$$a^2 - 4a + 1 = 0$$

$$a = 2 \pm \sqrt{4 - 1}$$

$$\text{tgx} = 2 + \sqrt{3}$$