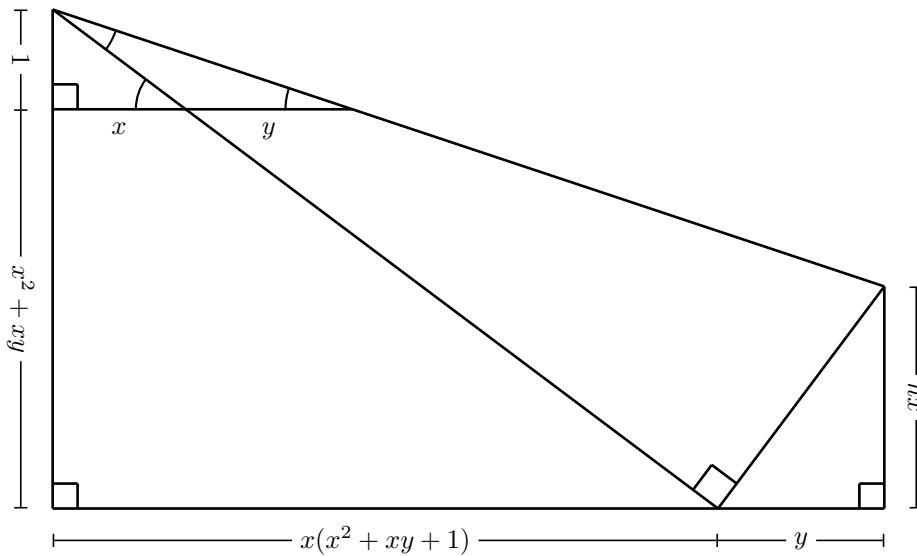


Proof Without Words: Euler's Arctangent Identity

Prove: $\tan^{-1}\left(\frac{1}{x}\right) = \tan^{-1}\left(\frac{1}{x+y}\right) + \tan^{-1}\left(\frac{y}{x^2+xy+1}\right).$



$$\tan^{-1}\left(\frac{1}{x}\right) = \tan^{-1}\left(\frac{1}{x+y}\right) + \tan^{-1}\left(\frac{y}{x^2+xy+1}\right)$$

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