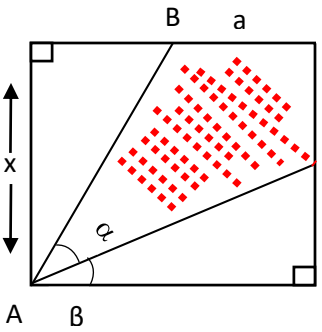
Trigo Area 3



Square

Given : $\frac{S_{ABCD}}{X^2} = \frac{1}{2}$

Prove , $t_g\,\alpha = \frac{3}{4}$

$S_{ABCD} = \frac{ax}{2} + \frac{ax}{2} = ax$

$S_{SQUARE} = x^2$

We know that $ax = \frac{1}{2}x^2$ /:x

$a = \frac{1}{2}\,x$

$t_g\beta = \frac{\frac{1}{2}x}{x} = \frac{1}{2}$

$90^0 - \alpha = 2\beta$

$t_g\,(90^0 - \alpha) = t_g 2\beta$

$t_g 2\beta = \frac{2.\frac{1}{2}}{1-\frac{1}{4}} = \frac{4}{3}$

$ct_g\alpha = t_g 2\beta = \frac{4}{3}$

$\frac{1}{t_g\alpha} = \frac{4}{3}$

$t_g\alpha = \frac{3}{4}$

$\sphericalangle D = \sphericalangle B$

$\sphericalangle D + \sphericalangle B + \alpha + 90^0 = 360^0$

$\sphericalangle B = \frac{270^0 - \alpha}{2}$