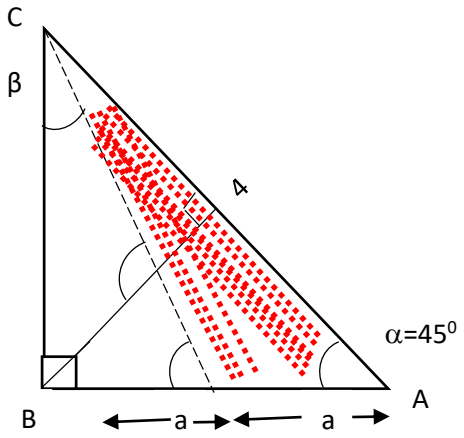
Trigo $t_g\alpha$



AB=BC=2a

$\sphericalangle B = 90^0$

AC = 4

$\sphericalangle A = \alpha = \frac{90}{2} = 45°$

$t_g\alpha = t_g45^0 = 1$

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

$r = \alpha - \beta$, $t_gr = ?$

$t_gr = t_g(\alpha - \beta) = \frac{1-\frac{1}{2}}{1+\frac{1}{2}} = \frac{1}{3}$

$t_gx = \frac{2a}{a} = 2$

$ct_gr = \frac{1}{t_g r} = \frac{1}{\frac{1}{3}} = 3$

$t_g(90+r) = - ct_gr = - 3$

a = ?

$(BC)^2 + (AB)^2 = 4^2$

$(2a)^2 + (2a)^2 = 16$

$4a^2 + 4a^2 = 16$

$8a^2 = 16$

$a^2 = 2$

$a = \sqrt{2}$