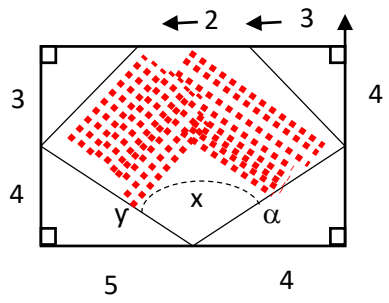
Trigo $t_g(\alpha+y)$

$t_g(\alpha+y) = \frac{t_g\,\alpha + t_g\,y}{1 - t_g\,\alpha . t_g\,y}$

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

$t_g\,y = \frac{4}{5}$

Calculate $t_g\,x$ = ? Given rectangular



(a) $t_g\alpha = \frac{7-4}{4} = \frac{3}{4}$ $t_g y = \frac{4}{5}$

$\alpha + y + x = 180^0 \Rightarrow 180 - x = \alpha + y$

$t_g(180^0 - x) = t_g(\alpha + y) = - t_g x$

$t_g(\alpha + y) = \frac{\frac{3}{4}+\frac{4}{5}}{1-\frac{3}{4}.\frac{4}{5}} = \frac{\frac{15+16}{20}}{\frac{2}{5}} = \frac{31}{20}.\frac{5}{2} = \frac{31}{8} = \Rightarrow t_g x = -3\frac{7}{8}$

(b) Find the red Area ?

$7.9 - \frac{1}{2}(4.3 + 4.3 + 5.4 + 3.4) = 63 - 28 = 35$