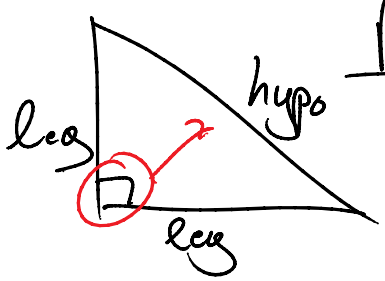
Friday, February 06, 2015
8:09 AM

9.4

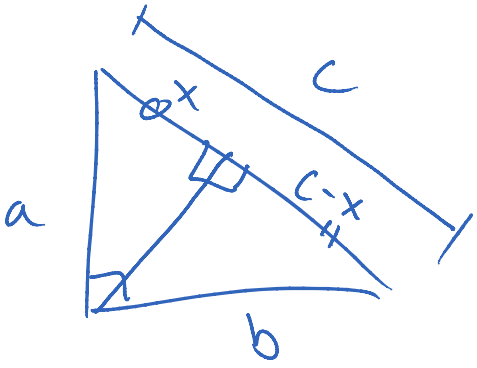
Pythagorean Thm



$leg^2 + leg^2 = hypo^2$ · Right

$short^2 + short^2 < longest^2$ obtuse

$short^2 + short^2 > longest^2$ acute

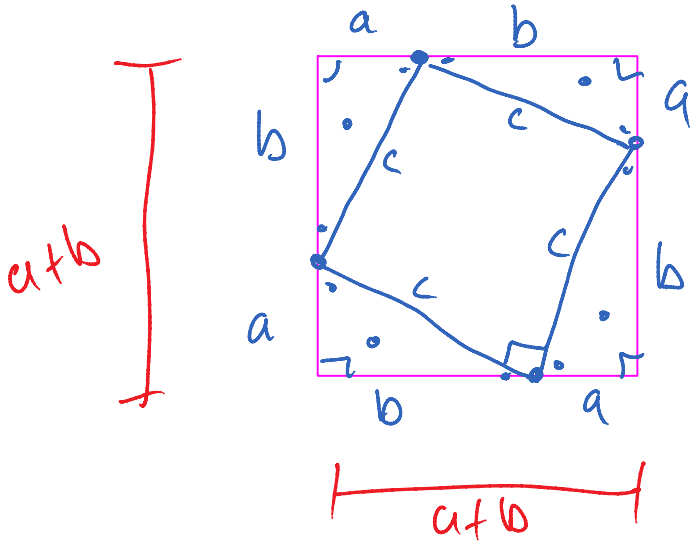


$a^2 = x \cdot c$

$b^2 = c(c-x)$

$= c^2 - cx$

$a^2 + b^2 = x \cdot c + c^2 - cx$



$A_B = (a+b)(a+b) = a^2 + 2ab + b^2$

$A_B = 4\Delta's + A_S$

$= 4\left(\frac{1}{2}a \cdot b\right) + c^2$

$= 2ab + c^2$

$a^2 + 2ab + b^2 = 2ab + c^2$