Srđan theorem

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1 Pythagorean theorem

Pythagorean theorem : sides of a triangle (a , b) whose angle 90° , side (c) is obtained , squared side (c) equal to the sum of squares of sides (a , b) , $c^2=a^2+b^2$.

2 Srđan theorem

Srđan theorem : sides (pseudosides) of a triangle (a_p , b_p) for any angle , side (c) is obtained , squared side (c) equal to the sum of squares of sides or pseudosides (a_p , b_p) ,
$c^2=a_p{}^2+b_p{}^2$

3 Solving

We have a sides (a , b) which are constant, the angle between them which is an independent variable, side (c) that the dependent variable . Since this is a geometric function , we can not be solved as a function of current, because the independent variable (angle) changes constants (sides a and b) in the variables ($a_p=(a\sin\gamma)^2$, $b_p=(b-(a\cos\gamma))^2$)

3.1 Angle 45°

$c^2=a_p{}^2+b_p{}^2$
$c^2=(a\sin\gamma)^2+(b-(a\cos\gamma))^2$
$c^2=(a\sin45°)^2+(b-(a\cos45°))^2$
$c^2=(0.707a)^2+(b-0.707a)^2$

3.2 Angle 90°

$c^2 = a_p{}^2 + b_p{}^2$
$c^2 = (a\sin\gamma)^2 + (b - (a\cos\gamma))^2)$
$c^2 = (a\sin 90^\circ)^2 + (b - (a\cos 90^\circ))^2$
$c^2 = (1a)^2 + (b-0)^2$
$c^2 = a^2 + b^2$ - pythagorean theorem

3.3 Angle 135°

$c^2 = a_p{}^2 + b_p{}^2$
$c^2 = (a\sin\gamma)^2 + (b - (a\cos\gamma))^2$
$c^2 = (a\sin 135^\circ)^2 + (b - (a\cos 135^\circ))^2$
$c^2 = (0.707a)^2 + (b - (-0.707a)^2$
$c^2 = (0.707a)^2 + (b + 0.707a)^2$