

$$a+c=b$$

$$b-c=a$$

$$(m,n)=(n,m)$$

$$(m,m)=m^2$$

$$(a,b+c)=(a,b)+(a,c)$$

$$(m,n)=|m|*|n|*\text{Cos}(m,n)$$

$$m\{x1,y1,z1\} \quad (m,n)=x1*x2+y1*y2+z1*z2$$

$$n\{x2,y2,z2\}$$

$$b-c=a$$

$$(b-c,b-c)=(a,a)$$

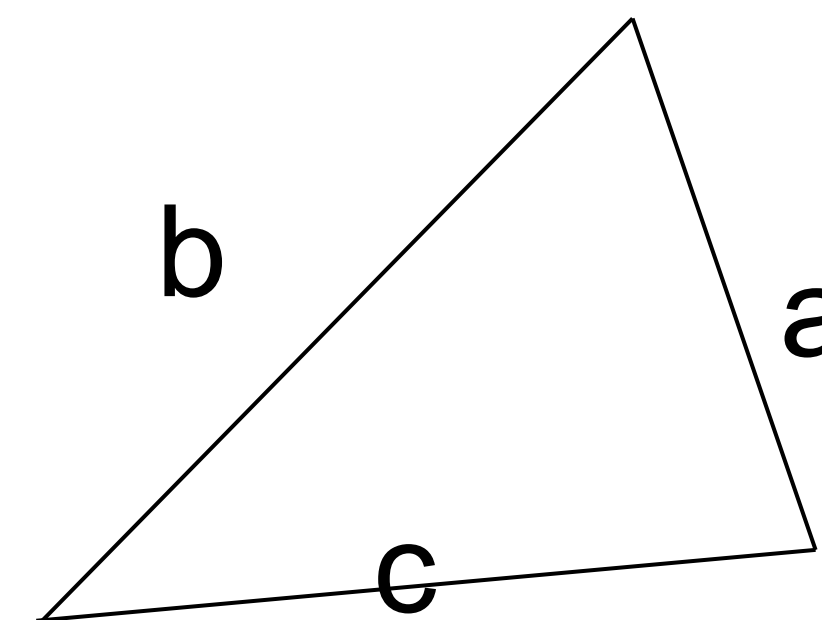
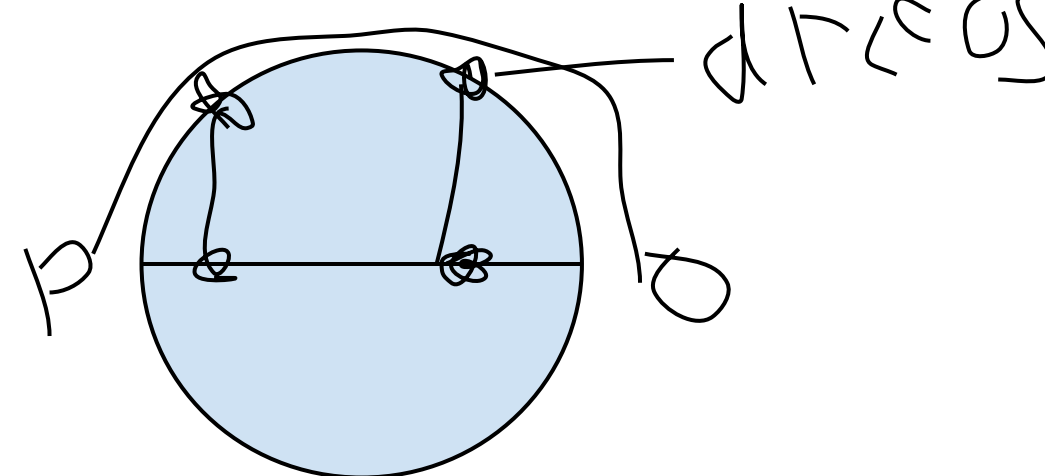
$$b^2+c^2-2(b,c)=a^2$$

$$b^2+c^2-2b*c*\cos(b^c)=a^2$$

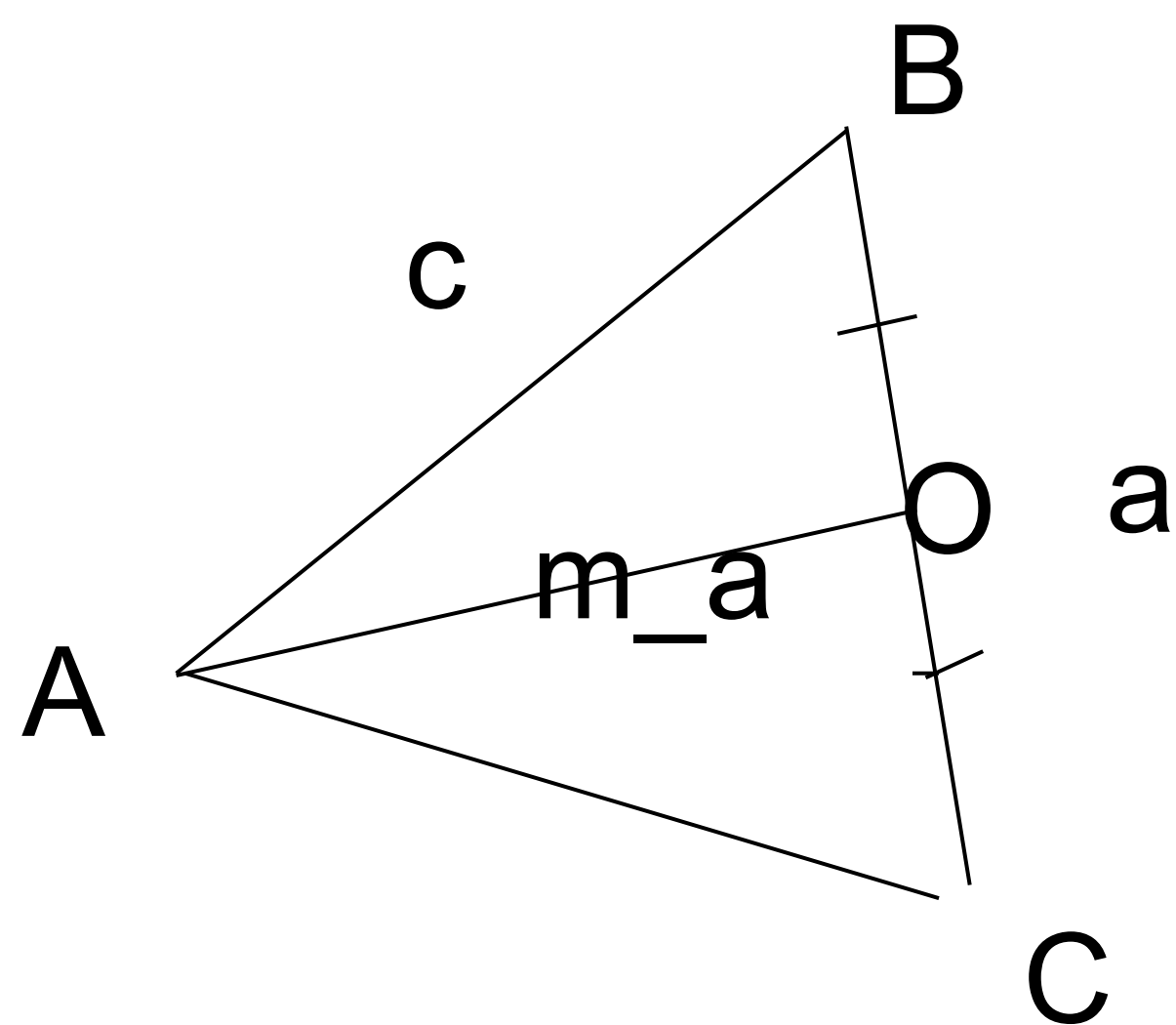
Дан треугольник, и три его стороны a,b,c. найти угол A

$$\cos A = -(a^2 - b^2 - c^2) / (2b*c)$$

$$\cos A = (-a^2 + b^2 + c^2) / (2b*c)$$



Дан треугольник ABC, и две его стороны a,c, m_a. найти AC



$$c^2 = m_a^2 + a^2/4 - 2m_a * 1/2 * a * \cos AOB$$

$$\cos AOB = (m_a^2 + a^2/4 - c^2) / (m_a * a)$$

$$\cos AOC = \cos(180 - AOB) = -\cos AOB$$

$$AC^2 = a^2/4 + m_a^2 + a * m_a * \cos AOB$$

$$AC^2 = a^2/4 + m_a^2 + m_a^2 + a^2/4 - c^2$$

$$AC^2 = a^2/2 + 2m_a^2 - c^2$$

$$AC^2 = (a^2 + 4m_a^2 - 2c^2) / 2$$