

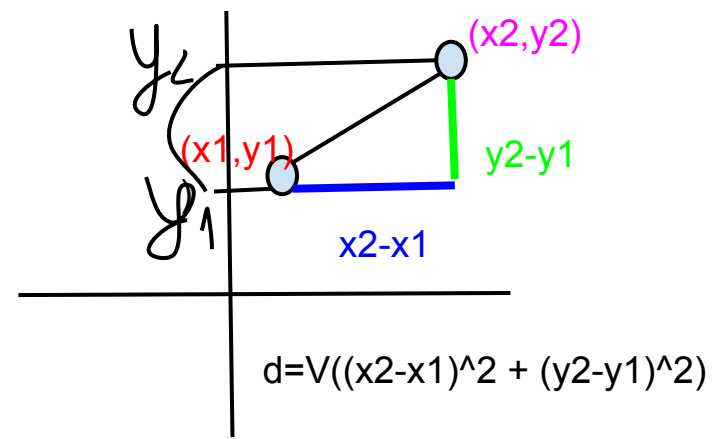
$$\sin^2 x + \cos^2 x = 1$$

$$\sin(x+y) = \sin x \cos y + \sin y \cos x$$

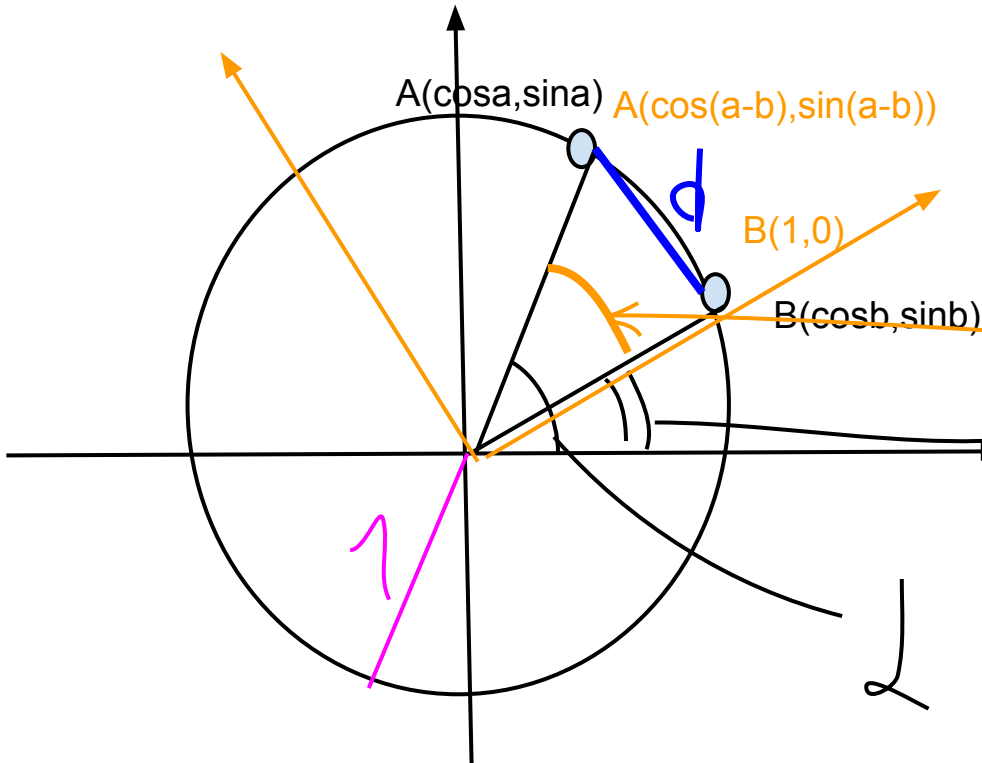
$$\sin(x-y) = \sin x \cos y - \sin y \cos x$$

$$\cos(x+y) = \cos x \cos y - \sin x \sin y$$

$$\cos(x-y) = \cos x \cos y + \sin x \sin y$$



не по человечески



$$d^2 = (\cos b - \cos a)^2 + (\sin b - \sin a)^2 = \cos^2 b + \cos^2 a - 2\cos b \cos a + \sin^2 b - 2\sin b \sin a + \sin^2 a = 2(1 - \cos b \cos a - \sin b \sin a)$$

$\alpha - \beta$

$$d^2 = (\cos(a-b) - 1)^2 + (\sin(a-b))^2 = \cos^2(a-b) - 2\cos(a-b) + 1 + \sin^2(a-b) = 2 - 2\cos(a-b) = 2(1 - \cos(a-b))$$

$$2(1 - \cos b \cos a - \sin b \sin a) = 2(1 - \cos(a-b))$$

$$\cos(a-b) = \cos b \cos a + \sin b \sin a$$