

Tożsamości trygonometryczne

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

$$2. \sin 2x = 2 \sin x \cos x$$

$$3. \cos 2x = \cos^2 x - \sin^2 x$$

$$4. \cos x + \cos y = 2 \cos \frac{x+y}{2} \cos \frac{x-y}{2}$$

$$5. \cos x - \cos y = -2 \sin \frac{x+y}{2} \sin \frac{x-y}{2}$$

$$6. \sin x + \sin y = 2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}$$

$$7. \sin x - \sin y = 2 \cos \frac{x+y}{2} \sin \frac{x-y}{2}$$

$$8. \cos ax \cos bx = \frac{1}{2} (\cos(a+b)x + \cos(a-b)x)$$

$$9. \sin ax \sin bx = -\frac{1}{2} (\cos(a+b)x - \cos(a-b)x)$$

$$10. \sin ax \cos bx = \frac{1}{2} (\sin(a+b)x + \sin(a-b)x)$$

$$11. \sin^2 x = \frac{1 - \cos 2x}{2}$$

$$12. \cos^2 x = \frac{1 + \cos 2x}{2}$$