

Formelsamling

Vektorer

Belopp/längd

$$\mathbf{u} = (x, y, z) \implies |\mathbf{u}| = \sqrt{x^2 + y^2 + z^2} \quad (1)$$

Skalär produkt

$$\mathbf{u} = (x_1, y_1, z_1) \text{ och } \mathbf{v} = (x_2, y_2, z_2) \implies \mathbf{u} \cdot \mathbf{v} = x_1 x_2 + y_1 y_2 + z_1 z_2. \quad (2)$$

Plan trigonometri

Pythagoras sats

$$a^2 + b^2 = c^2 \quad (3)$$

Areasatsen

$$T = \frac{a b \sin C}{2} \quad (4)$$

Sinussatsen

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} \quad (5)$$

Cosinussatsen

$$c^2 = a^2 + b^2 - 2ab \cos C \quad (6)$$

Sfärisk trigonometri

Sinussatsen

$$\frac{\sin A}{\sin a} = \frac{\sin B}{\sin b} = \frac{\sin C}{\sin c} \quad (7)$$

Cosinussatsen

$$\cos c = \cos a \cos b + \sin a \sin b \cos C \quad (8)$$