

$$E = \frac{1}{2} \hbar / k_{\text{B}} - \beta = \frac{\Delta I \cdot C}{\Delta T} \cdot \phi_0 = \frac{\Delta E}{\Delta T} \cdot \frac{M_1}{X} + \frac{M_2}{X'} = \frac{M_2}{X'} =$$

$$\frac{1}{J_0} (\vec{E} \times \vec{B}) = \frac{E_0}{L^2} = \frac{\hbar^2}{8 \pi^2 L^2 \cdot J_0^2} \oint \vec{D} \cdot d\vec{S} =$$

$$\frac{\hbar^2 k^2}{2 m} \cdot 1 \text{ pc} = \frac{1 \text{ AU}}{r} \cdot S \cdot R = \frac{U}{I} F_V = S^2$$

$$= \frac{1}{2} \frac{\sigma}{\sqrt{\omega}} = \frac{Q}{S \cdot \pi^2} M = F_d \cos \alpha$$

$$\begin{aligned} \cos \alpha - \cos \beta &= c^{\log_b c} = c^{\log_b a} = 2 \cos^2 \frac{\alpha}{2} - 1 + \cos \frac{\alpha - \beta}{2} \\ \beta &= 2 \sin^2 \frac{\alpha - \beta}{2} \cos \frac{\alpha}{2} \\ \sin \beta &= 2 \sin \frac{\alpha - \beta}{2} \cos \frac{\alpha + \beta}{2} \end{aligned}$$

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# {MERAAN}

# **Mathematics in Education, Research and Applications**

**Research in mathematics and related fields**

## **Education in mathematics at all types of schools**

## **Applications of mathematics in teaching, research and practice**

## **Methodology of mathematics**

## Information technology tools in mathematics

## Cross-curricular relations with mathematics

$$\begin{aligned} \sqrt{b^2 - 4ac}x^2 + x + c = 0 & \quad | \cdot 2a \\ b^2 - 4acx^2 + 2ax + 2ac = 0 & \quad | : 2a \\ b^2 - 4c(x^2 - \frac{x}{a}) + 2ac = 0 & \quad | + \frac{b^2}{4a} \\ b^2 - 4c(x - \frac{1}{2})^2 + 2ac = \frac{b^2}{4a} & \quad | + \frac{b^2}{4a} \\ b^2 - 4cx^2 + 4c(\frac{1}{4}) + 2ac = \frac{b^2}{4a} & \quad | \cdot 4 \\ b^2 - 16cx^2 + 4c + 8ac = b^2 & \quad | - b^2 \\ -16cx^2 + 4c + 8ac = 0 & \quad | : (-4c) \\ 4 - 16x^2 + 8a = 0 & \quad | - 8a \\ -16x^2 = -8a - 4 & \quad | : (-16) \\ x^2 = \frac{8a + 4}{16} & \quad | \sqrt{\phantom{x}} \\ x^2 = \frac{4(2a + 1)}{16} & \quad | \sqrt{\phantom{x}} \\ x^2 = \frac{(2a + 1)^2}{4} & \quad | \sqrt{\phantom{x}} \\ x = \pm \frac{2a + 1}{2} & \quad | \cdot 2 \\ x = \pm \frac{2a + 1}{a} & \end{aligned}$$

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