Engineering Calculation

Beam Analysis

The maximum moment for a simply supported beam with uniform load is:

$$M_{max} = \frac{wL^2}{8}$$

Where: - w is the uniform load (kN/m) - L is the span length (m)

Example Calculation

Given: - $w = 10$ kN/m - $L = 6$ m

Calculate:

$$M_{max} = \frac{10 \times 6^2}{8} = 45 \text{ kN} \cdot \text{m}$$