

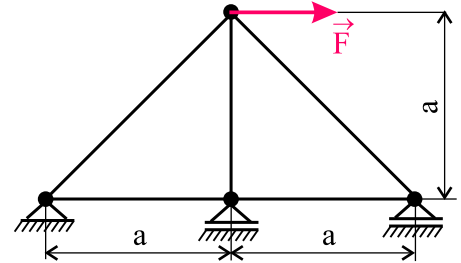
Problem 411

Determine the safety factor of the strut frame against the limit state of elasticity. All the bars are of the same circular cross section with diameter ϕd and are made of the same homogeneous material.

Input values:

$$a = 500 \text{ mm}, \quad \phi d = 30 \text{ mm} \quad E = 2 \cdot 10^5 \text{ MPa},$$

$$F = 10^5 \text{ N}, \quad \sigma_K = 350 \text{ MPa}.$$



tension systems with bars