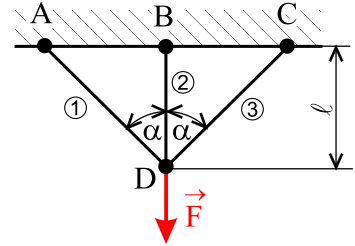


Problem 426

The structure in the figure is made of slender bars of the same circular cross sections S . It is loaded by the force \vec{F} . Evaluate the safety factor against the limit state of elasticity. The geometry, loads and material characteristics (all the three bars are made of the same material) are known (cross section area S , yield stress σ_K and Young's modulus E). Gravitational forces, production inaccuracies and temperature changes can be neglected.



[Solutions](#)

[systems with bars](#)

[Castigliano's theorem](#)