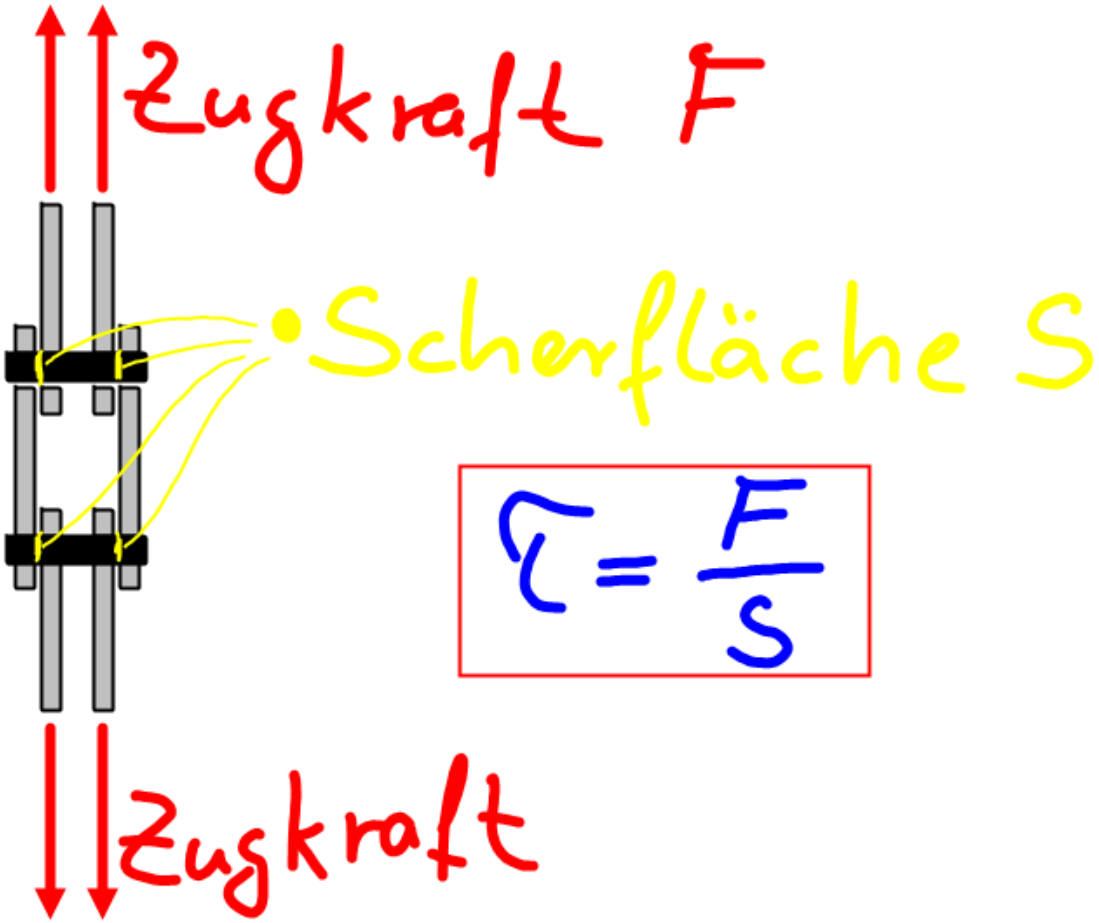
Scherspannung τ (Tau)



$$\boxed{\tau = \frac{F}{S}}$$

7

gg.: $F = 2000\,N$

$d = 3\,mm$

ges.: τ

$$S = \frac{\pi \cdot d^2}{4} = \frac{\pi \cdot 3^2}{4} = 7{,}07\,mm^2$$

$$\frac{F}{2} = 1000\,N \text{ (zwei Scherstellen)}$$

$$\tau = \frac{F}{S} = \frac{1000\,N}{7{,}07\,mm^2} = \underline{\underline{141{,}4\,\frac{N}{mm^2}}}$$