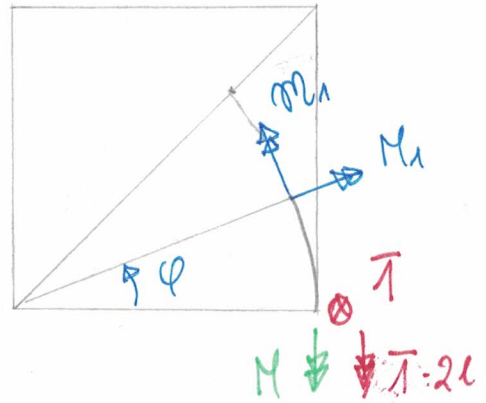
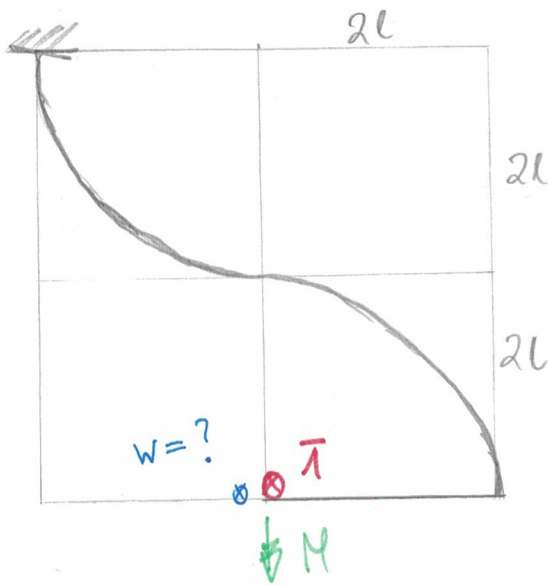
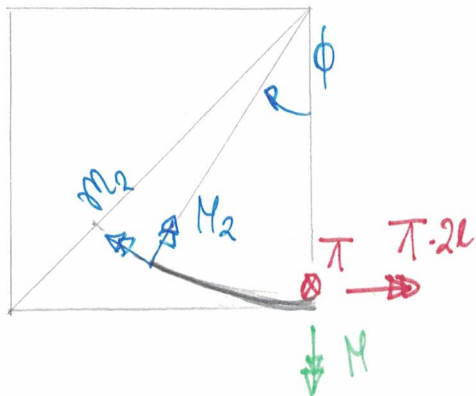


$$y y_s = E y$$



$$M_1 = M \cos \phi \quad \bar{M}_1 = 2l$$

$$M_2 = M \sin \phi \quad \bar{M}_1 = 0$$



$$M_2 = M \sin \phi$$

$$M_1 = M \cos \phi$$

$$\bar{M}_2 = -2l + 4l \cos \phi$$

$$\bar{M}_2 = -4l \sin \phi$$

$$w = \frac{1}{E y} \left[ M \cdot 2l \cdot \frac{1}{2} 2l + \int_0^{\frac{\pi}{2}} (M \cos \phi) (2l) 2l d\phi \right.$$

$$+ \int_0^{\frac{\pi}{2}} \left[ (M \sin \phi) (4l \cos \phi - 2l) 2l + (M \cos \phi) (-4l \sin \phi) 2l \right] d\phi$$

$$= \frac{2 M l^2}{E y}$$