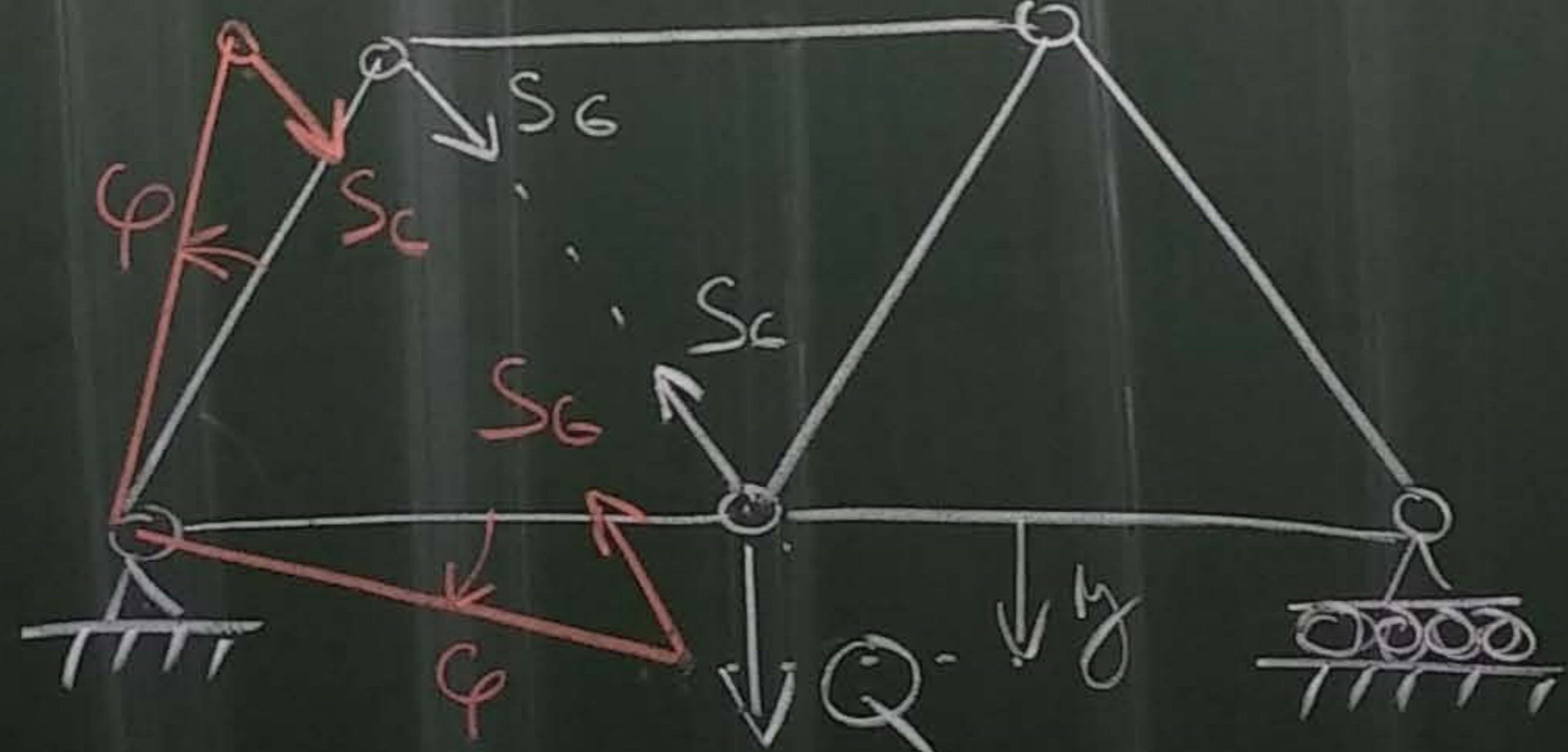
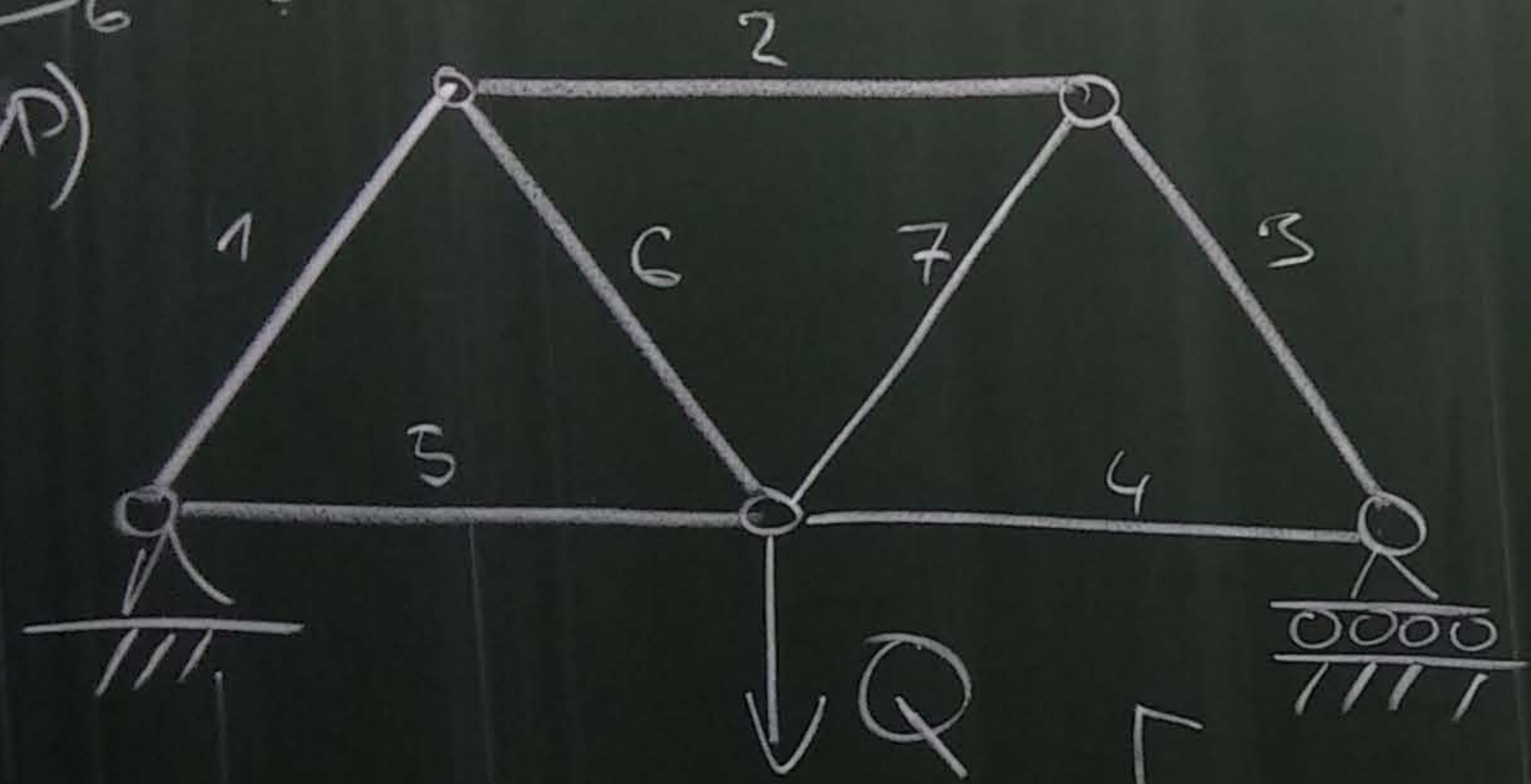


D:  $Q = 30\,000\text{ N}$

U:  $S_6 = ?$

(PVP)



$$\left[ Q \cdot r \cos \varphi - S_6 \frac{2r^2 \sin\left(\frac{\pi}{3} + 2\varphi\right)}{\sqrt{2r^2 - 2r^2 \cos\left(\frac{\pi}{3} + 2\varphi\right)}} \right] d\varphi = 0$$

$$d\varphi = 0 \rightarrow S_6 = \frac{Q \cos \varphi \sqrt{2 - 2 \cos\left(\frac{\pi}{3} + 2\varphi\right)}}{2 \sin\left(\frac{\pi}{3} + 2\varphi\right)}$$

$$\varphi = \phi \rightarrow S_6 = 17\,320,508\text{ N}$$

$$Q dy - S_6 d\Delta = 0$$

$$y = r \sin \varphi \rightarrow dy = r \cos \varphi d\varphi$$

$$\Delta = \sqrt{2r^2 - 2r^2 \cos\left(\frac{\pi}{3} + 2\varphi\right)}$$

$$d\Delta = \frac{1}{2} \left[ 2r^2 - 2r^2 \cos\left(\frac{\pi}{3} + 2\varphi\right) \right]^{-\frac{1}{2}} (+2r^2) (+\sin\left(\frac{\pi}{3} + 2\varphi\right)) 2 d\varphi$$

$$S_6 = \frac{Q \cos \varphi \sqrt{2 - 2 \cos\left(\frac{\pi}{3} + 2\varphi\right)}}{2 \sin\left(\frac{\pi}{3} + 2\varphi\right)}$$