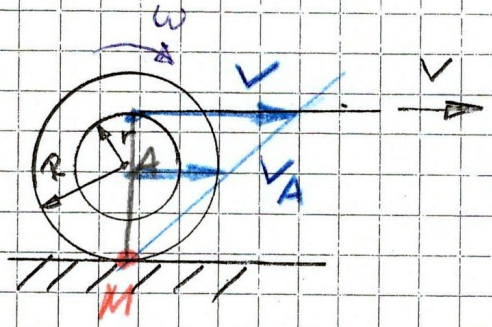
Musterlösungen 2. Aufgabe Zwangsbedingungen

Übungen zu Zwangsbedingungen

Ges: v_A, ω

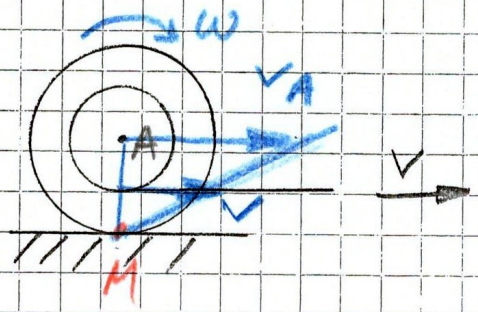
a)



$$\frac{v}{R+r} = \frac{v_A}{R} \Rightarrow v_A = v \cdot \frac{R}{R+r}$$

$$v_A = \omega \cdot R \Rightarrow \omega = \frac{v_A}{R}$$

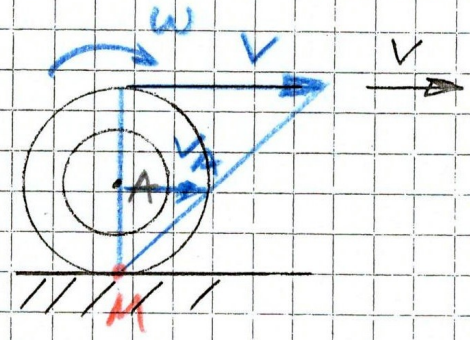
b)



$$\frac{v}{R-r} = \frac{v_A}{R} \Rightarrow v_A = v \frac{R}{R-r}$$

$$\omega = \frac{v_A}{R}$$

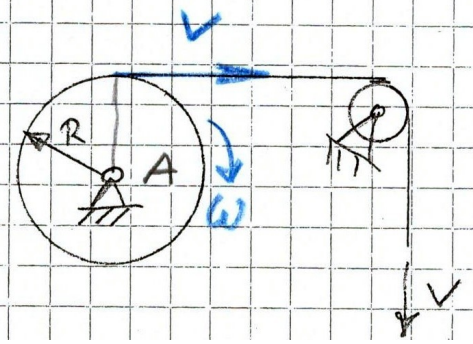
c)



$$\frac{v}{2R} = \frac{v_A}{R} \Rightarrow v_A = \frac{v}{2}$$

$$\omega = \frac{v_A}{R}$$

d)



$$v_A = 0$$

$$v = \omega \cdot R \Rightarrow \omega = \frac{v}{R}$$