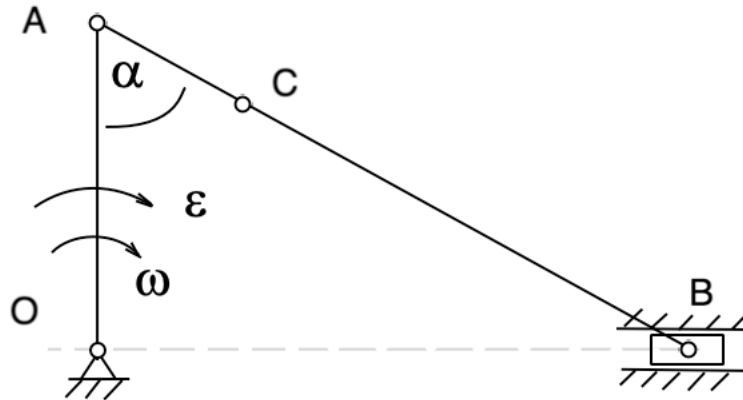


Zadania K7 - Ciastoń

Ruch płaski ciała sztywnego

Dla podanego położenia mechanizmu znaleźć prędkości i przyspieszenia punktów: A, B, C.

a)



$$|OA| = 20 \text{ [cm]}$$

$$\alpha = 60^\circ$$

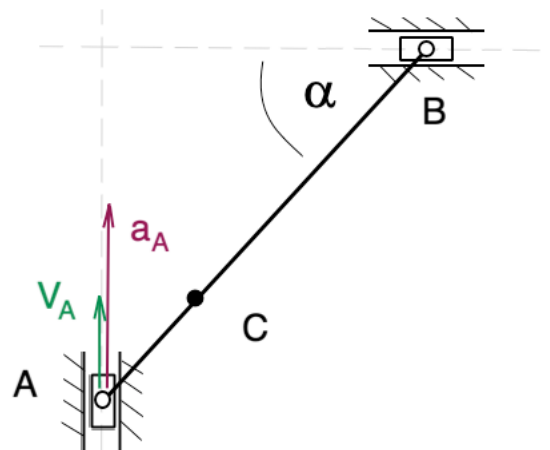
$$|AB| = 40 \text{ [cm]}$$

$$\omega = 2 \frac{1}{s}$$

$$|AC| = 10 \text{ [cm]}$$

$$\epsilon = 1 \frac{1}{s^2}$$

b)



$$|AB| = 30 \text{ [cm]}$$

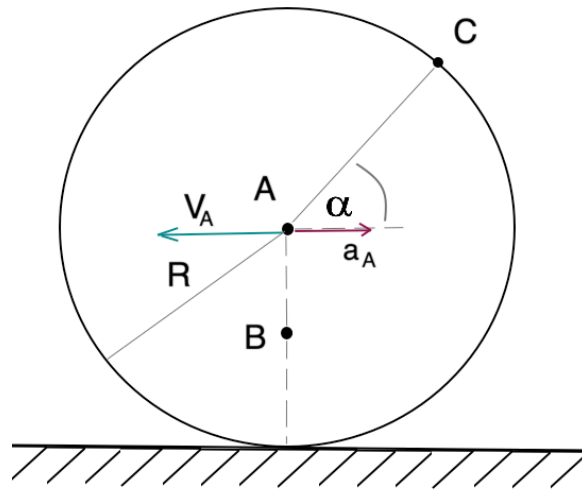
$$v_A = 5 \frac{\text{cm}}{s}$$

$$|AC| = 10 \text{ [cm]}$$

$$a_A = 10 \frac{\text{cm}}{s^2}$$

$$\alpha = 45^\circ$$

c)



$$R = 10 \text{ [cm]}$$

$$|AB| = 5 \text{ [cm]}$$

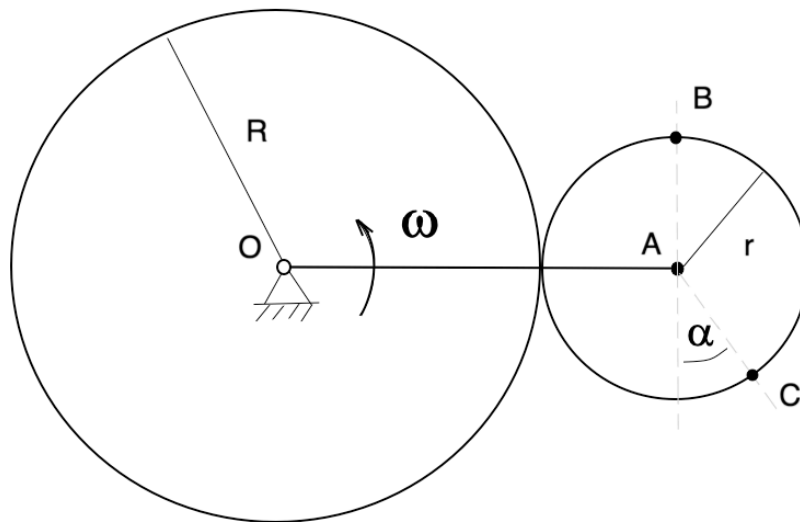
$$|AC| = R = 10 \text{ [cm]}$$

$$\alpha = 45^\circ$$

$$v_A = 20 \frac{\text{cm}}{\text{s}}$$

$$a_A = 15 \frac{\text{cm}}{\text{s}^2}$$

d)



$$|OA| = 30 \text{ [cm]}$$

$$R = 20 \text{ [cm]}$$

$$r = 10 \text{ [cm]}$$

$$\alpha = 30^\circ$$

$$\omega = 9 \frac{1}{\text{s}}$$

$$\varepsilon = 0 \frac{1}{\text{s}^2}$$