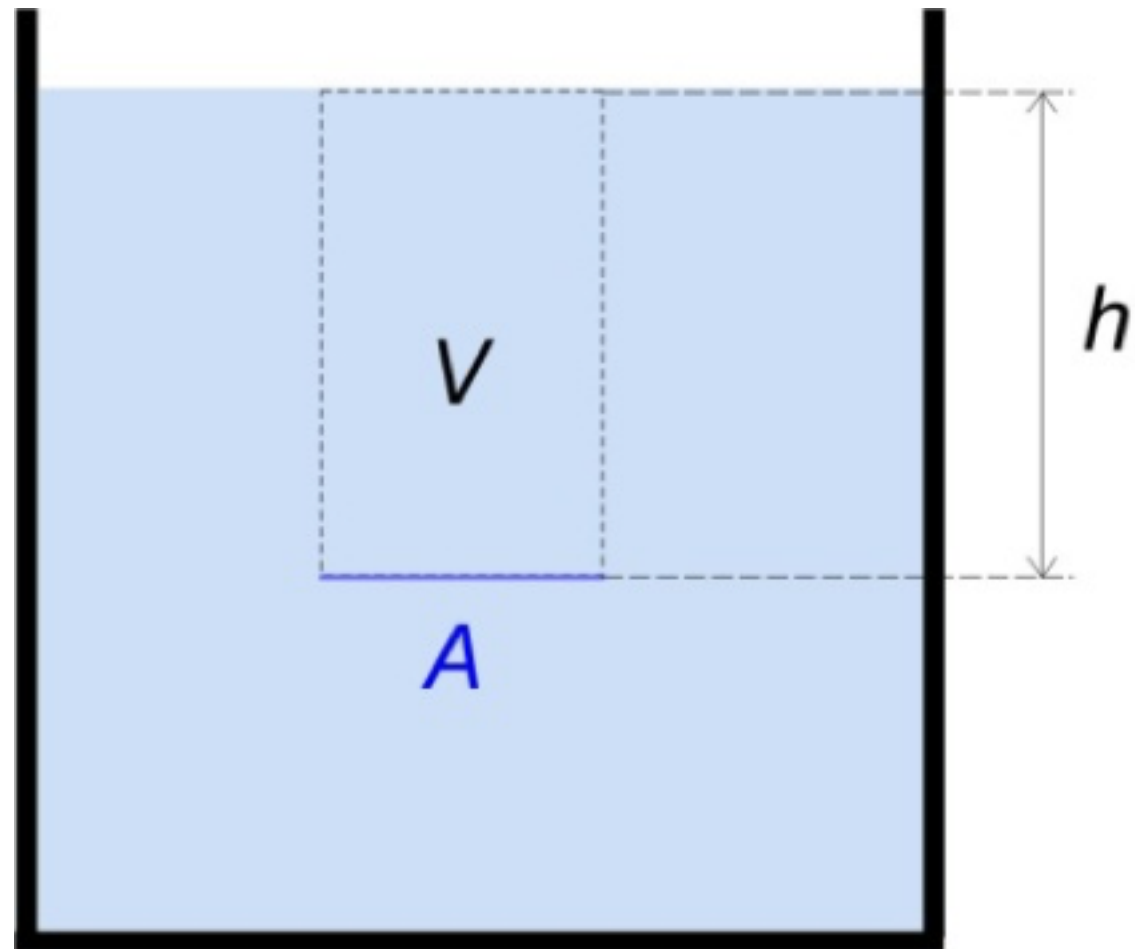


# **Folyadékok mechanikája**

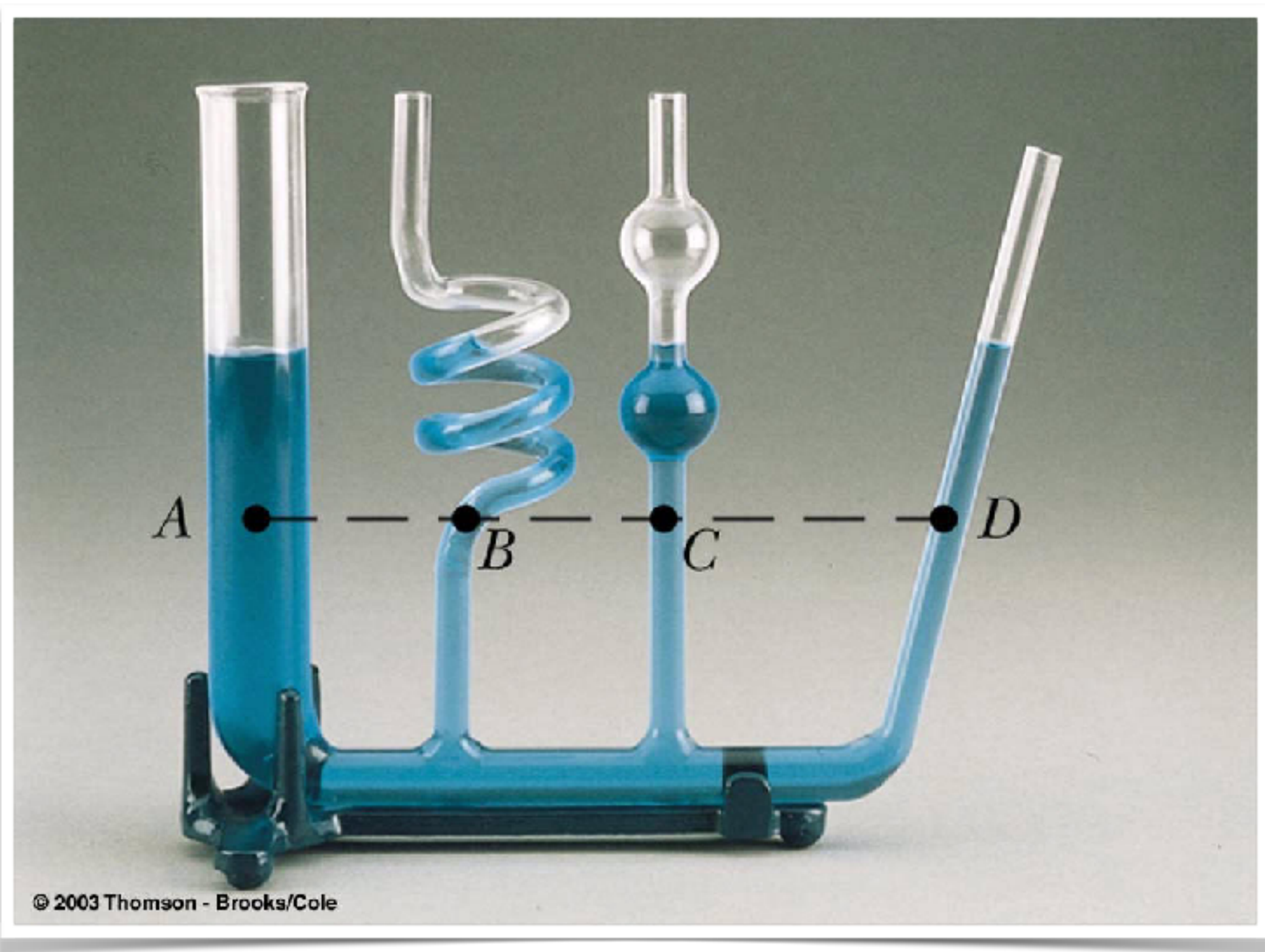
# A hidrosztatikai nyomás



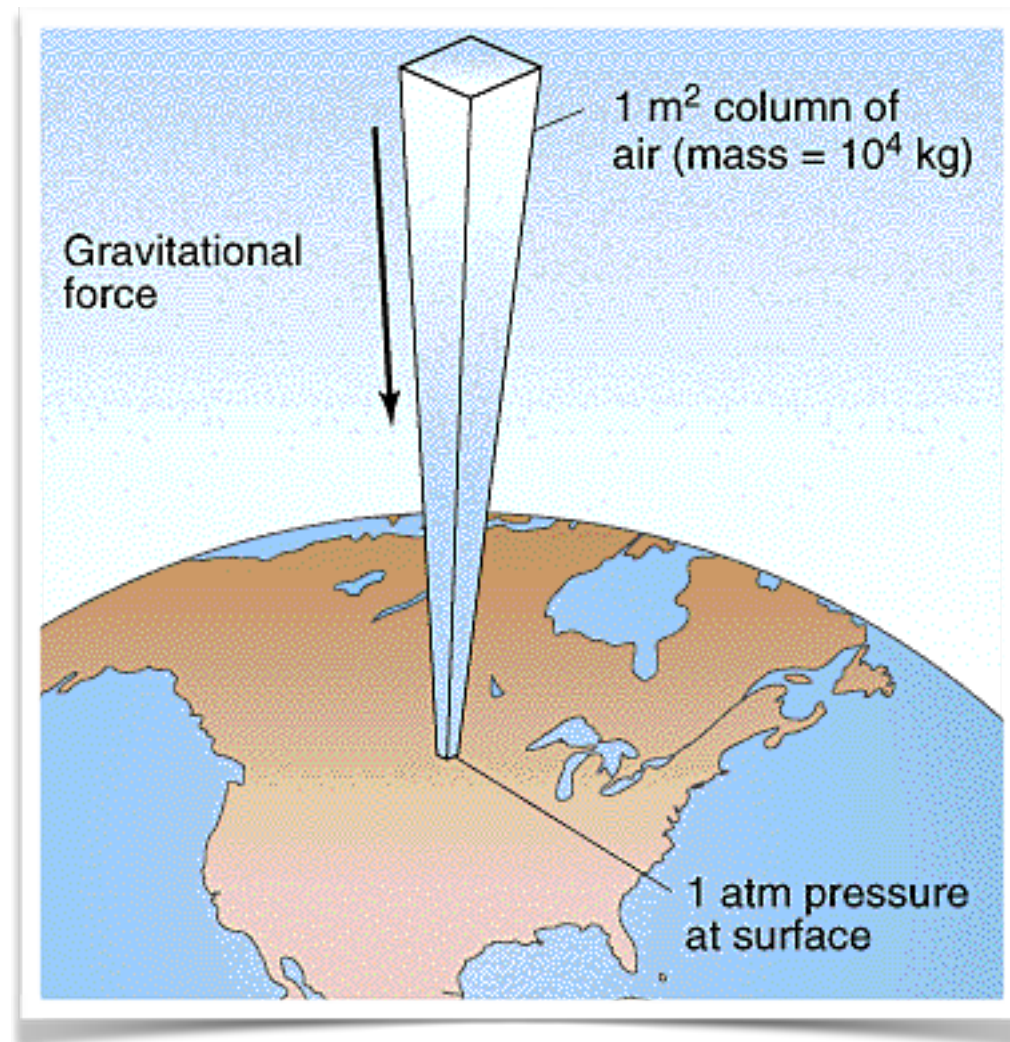


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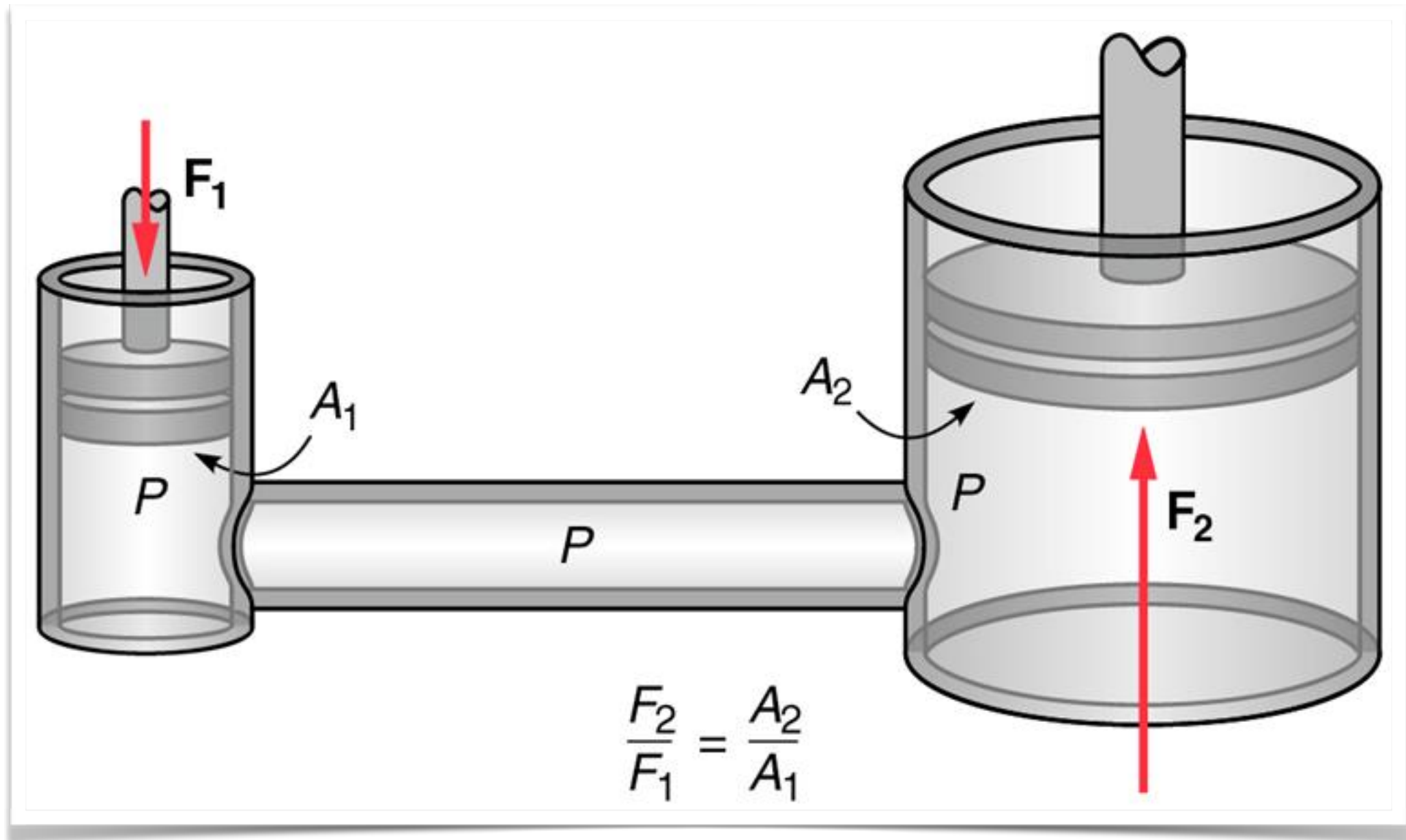
# A hidrosztatikai paradoxon



# Légköri nyomás

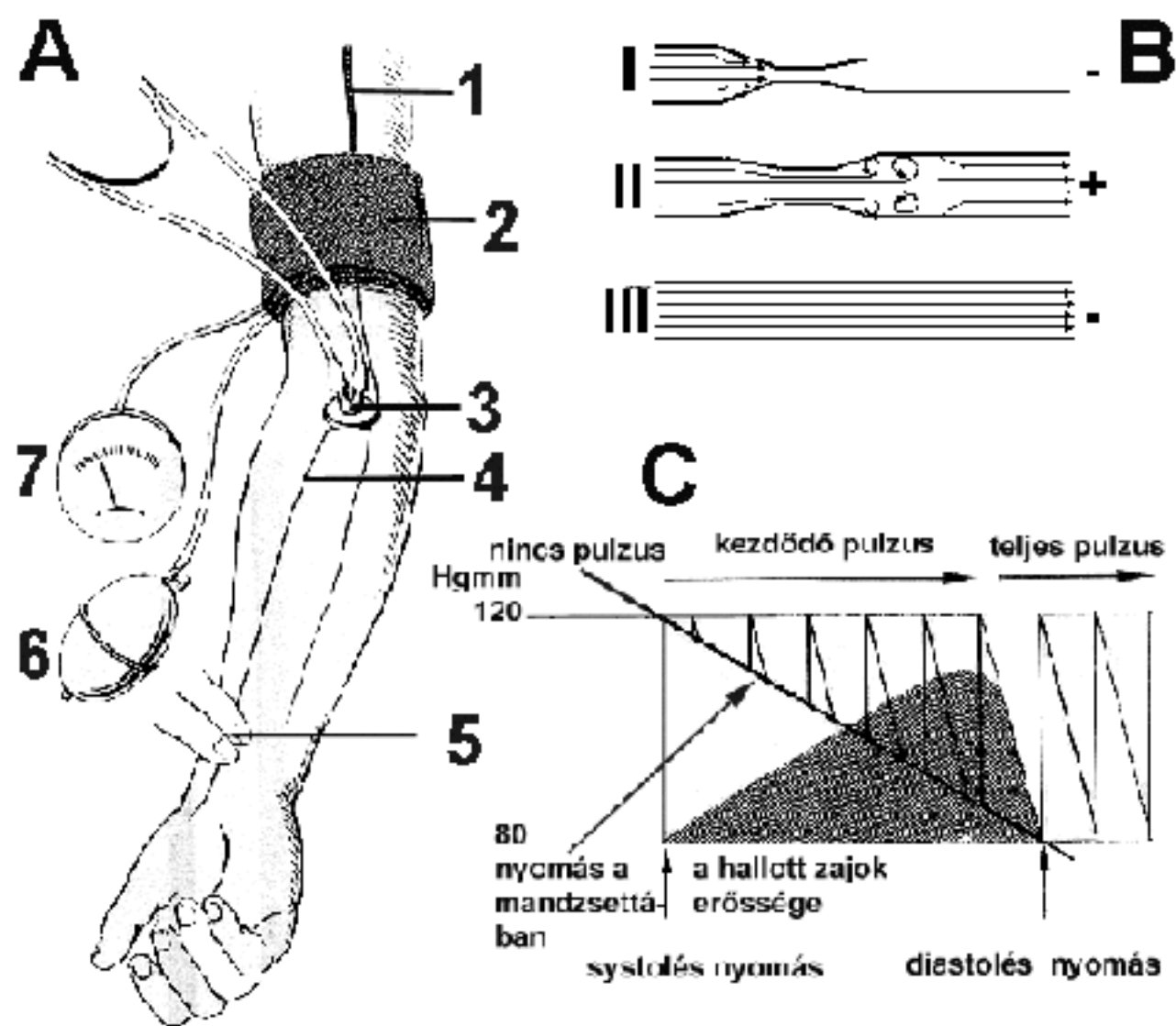


# Hidraulikus emelő (Pascal törvénye)





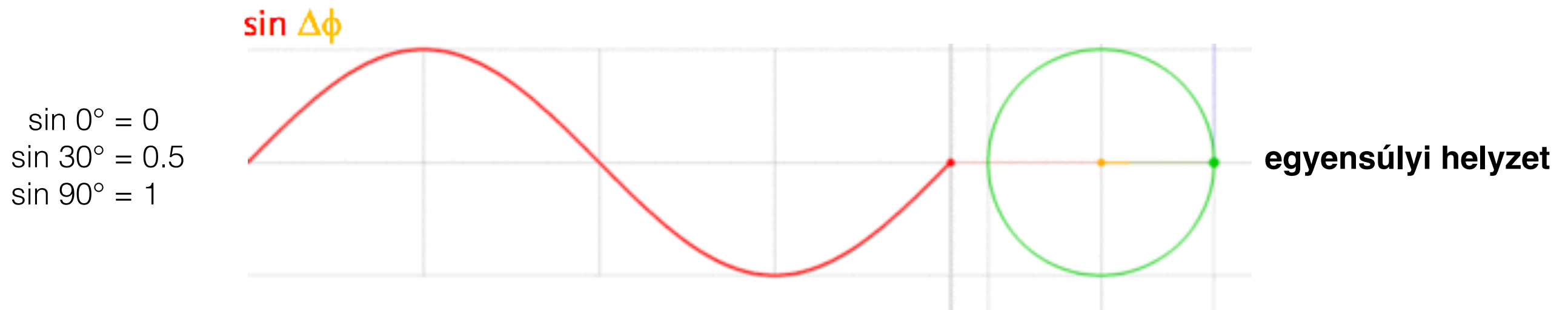
# Higanyos szfigmomanometer



# Rezgések

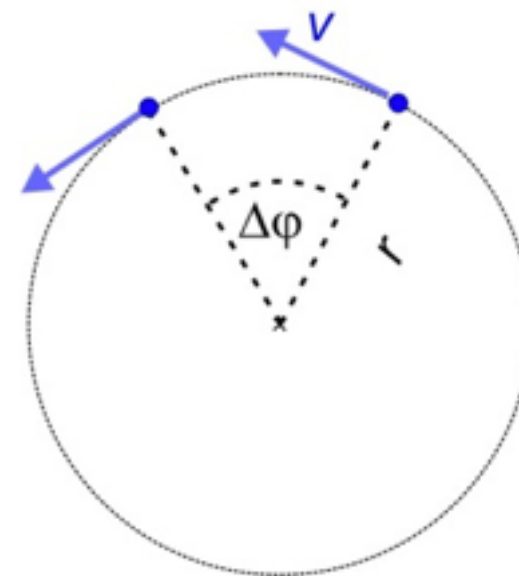


# Rezgés : Körmozgás csak más szemszögből



<https://en.wikipedia.org/wiki/Sine>

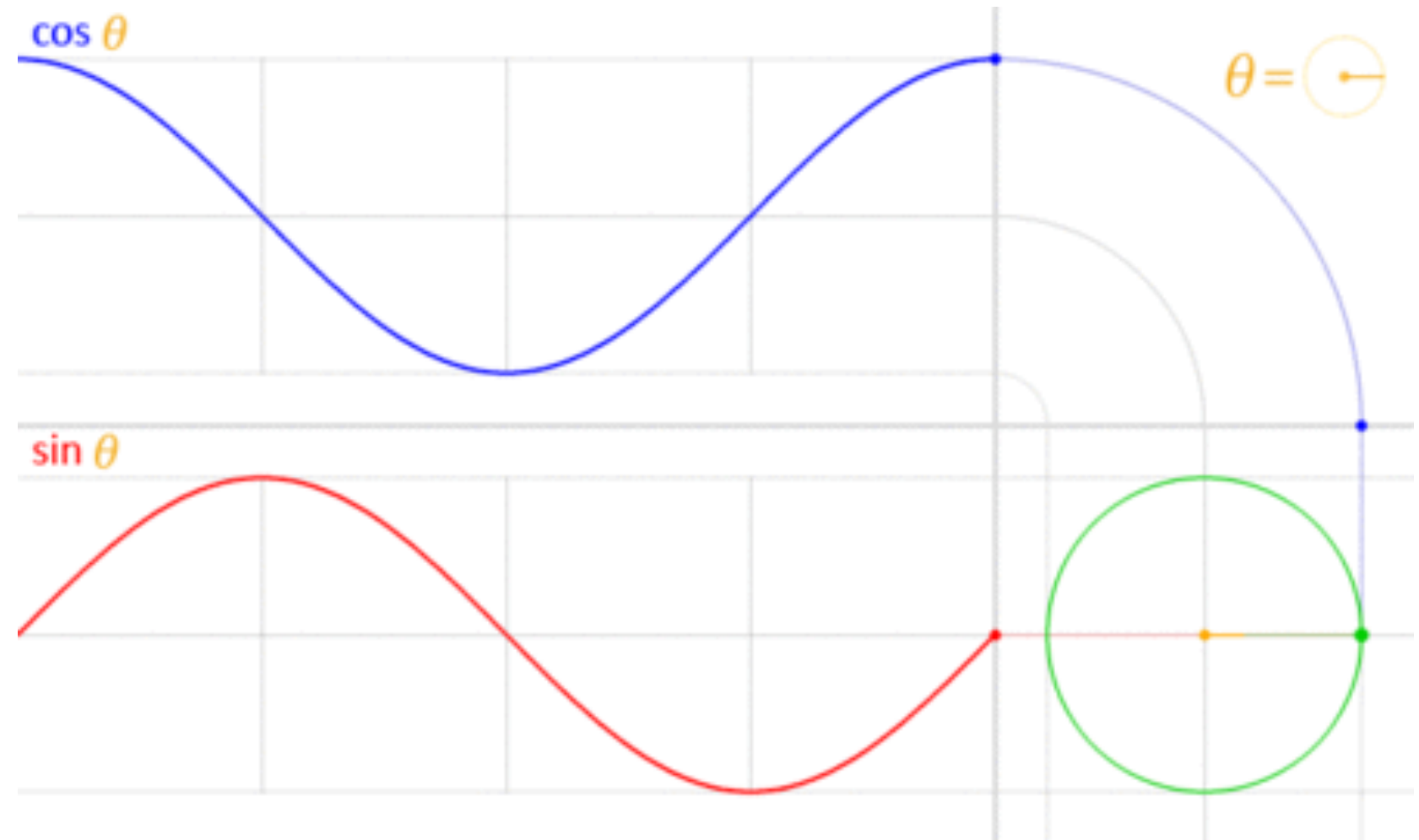
$$y = A \cdot \sin(\omega \cdot t + \varphi_0)$$



**fázis**

$$\varphi = \omega \cdot t$$

$$v = \omega \cdot A \cdot \cos(\omega \cdot t + \varphi_0)$$

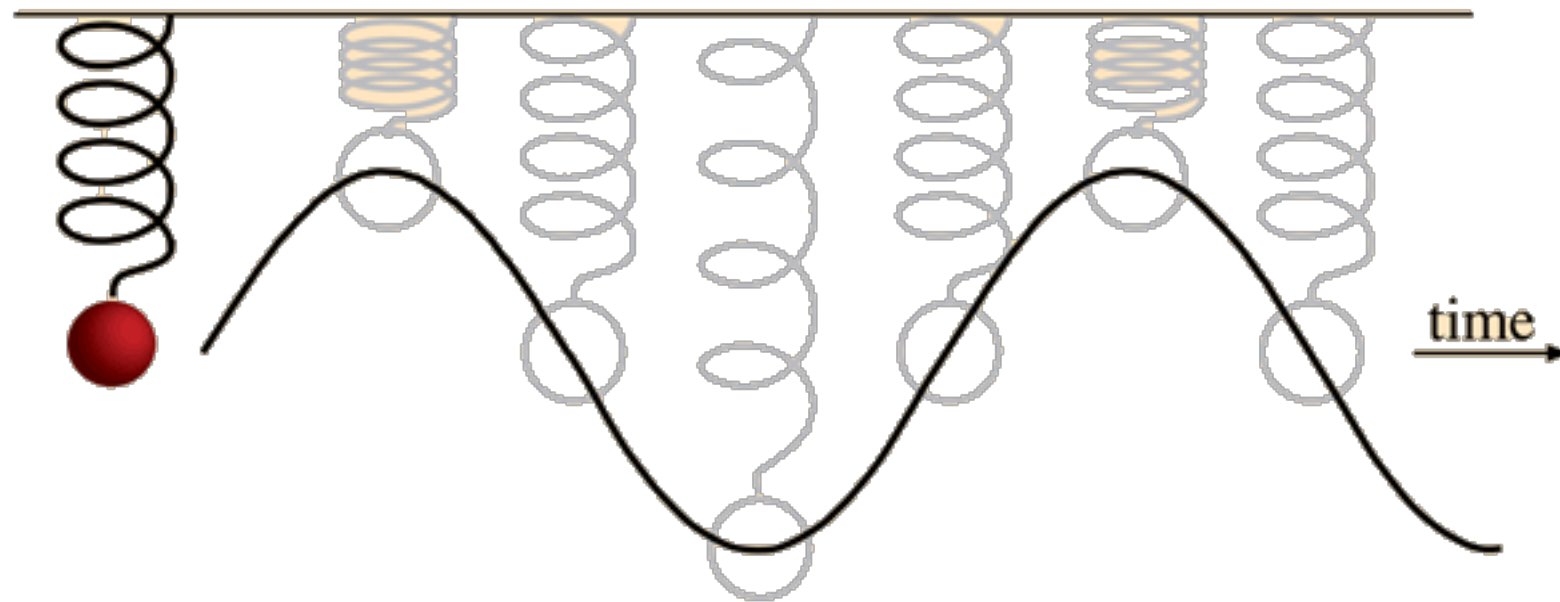


$$a = -\omega^2 A \cdot \sin(\omega \cdot t + \varphi_0)$$

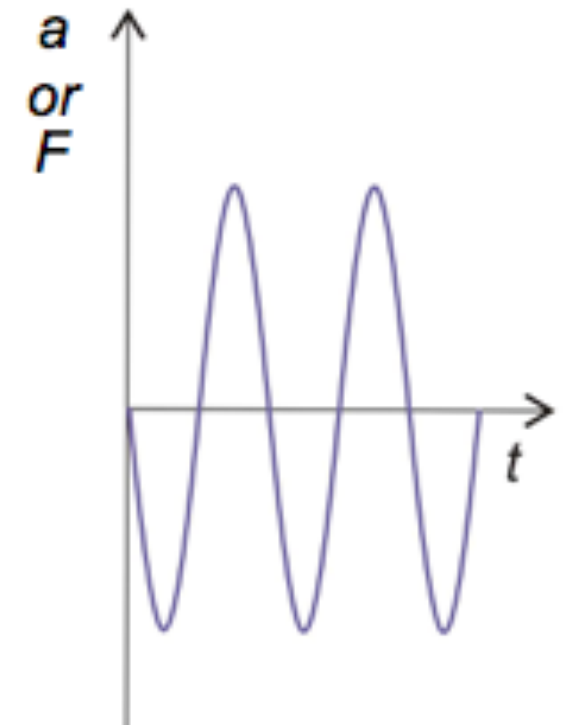
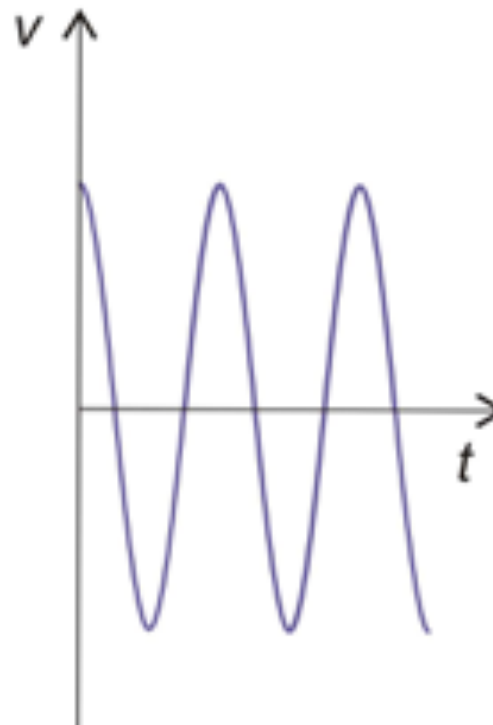
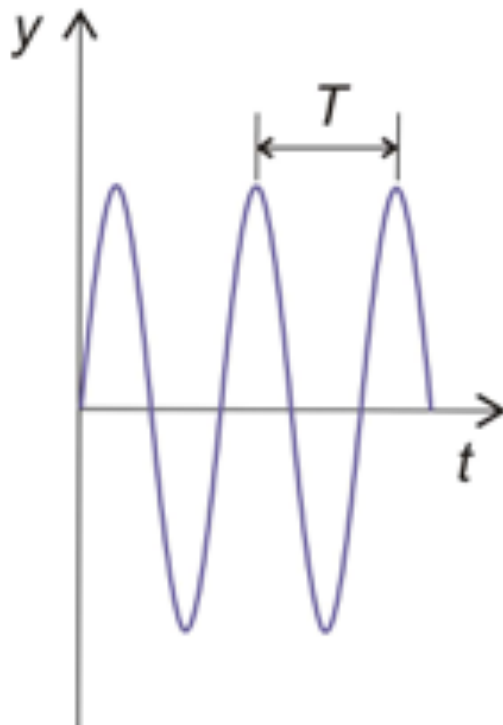
# Harmónikus rezgés

A visszatérítő erő arányos a kitéréssel

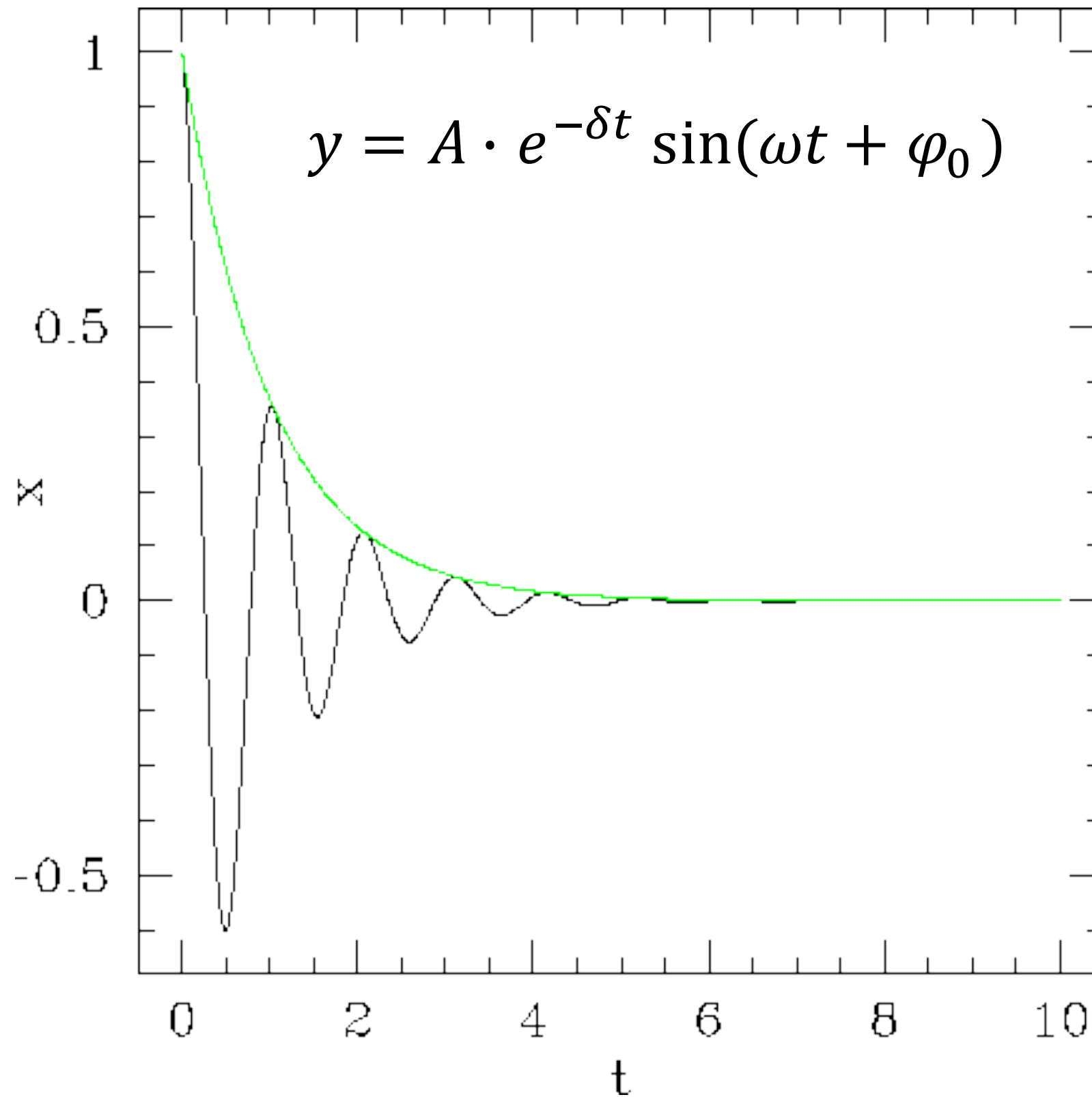
$$f = \frac{1}{T}$$



$$\omega = 2\pi \cdot f$$



# Csillapított szabadrezgés



# Sajátfrekvencia

$$F = ma = -m\omega^2 A \cdot \sin(\omega \cdot t + \varphi_0) = -m\omega^2 y$$

$$F = -D \cdot s \quad (s = y)$$

$$D = m \cdot \omega^2$$

$$f = \frac{\omega}{2\pi} = \frac{1}{2\pi} \sqrt{\frac{D}{m}}$$



# Rezonancia görbe

