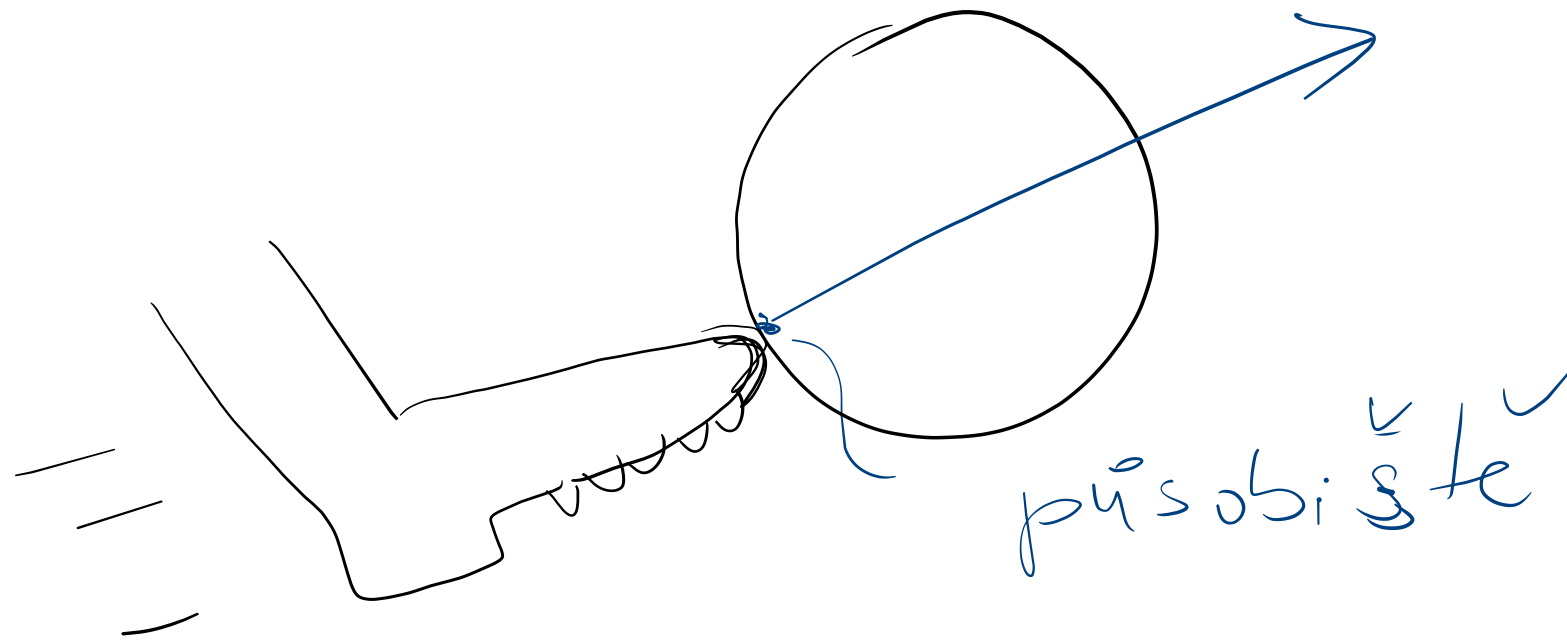


DYNAMIKA

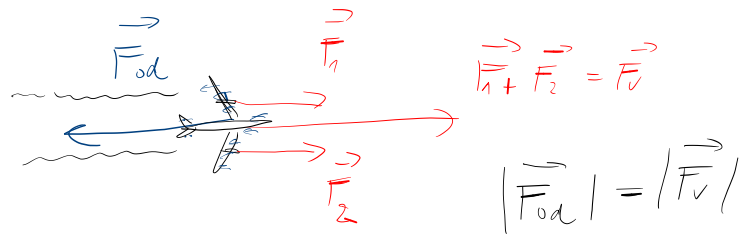
Sila - \vec{F}

$F \rightarrow$



Newtonovy pohybové zákony

I. N. p. z. - zákon setrvačnosti



inerciální vztažná soustava

II. N. p. z. - zákon síly

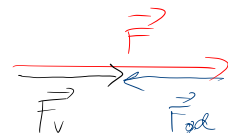
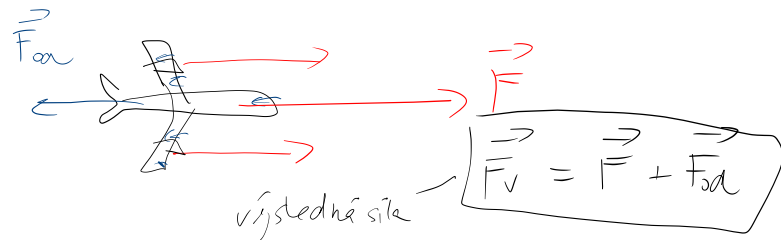
$$a = \frac{F}{m}$$

$$\vec{a} = \frac{\vec{F}}{m}$$

$$\Rightarrow F = m \cdot a$$

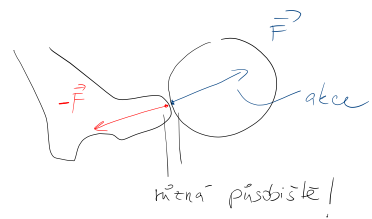
$$\vec{F} = m \cdot \vec{a}$$

$$[F] = 1N \text{ (newton)} = \text{kg} \cdot \frac{\text{m}}{\text{s}^2} = \text{kg} \cdot \text{m} \cdot \text{s}^{-2}$$



$$F_V = F - F_{od}$$

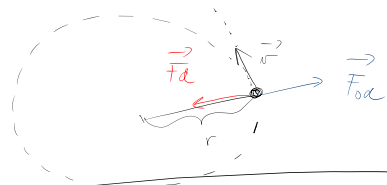
III. N. p. z. - zákon akce a reakce



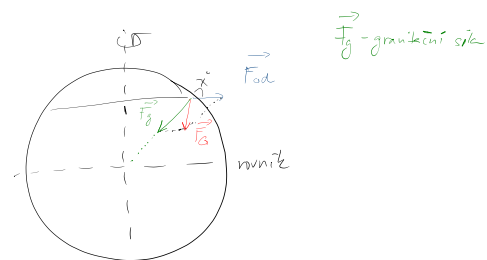
Speciální případy sil:



odstředivá/dostředivá síla - \vec{F}_{od} / \vec{F}_d



$$F_d = F_{od} = m a_d = m \frac{v^2}{r} = m \omega^2 r$$



tíha tělesa - \vec{G}

$$G = m \cdot g = F_g$$

