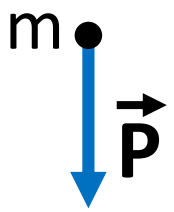
Peso de um corpo ($\vec{P}$)



O peso de um corpo é a força de atração gravitacional exercida sobre ele.

massa (kg)

$$P = m \cdot g$$ → gravidade (m/s²)

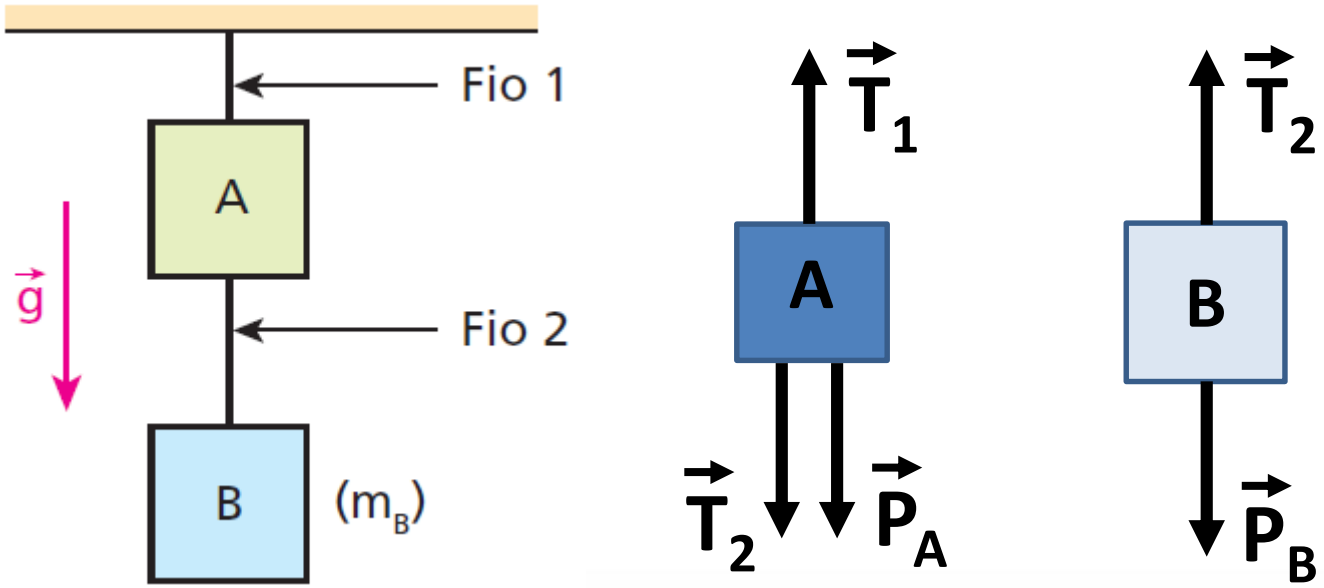
Peso (N)

Peso: grandeza física vetorial, vertical e para baixo.

Terra: $g = 9{,}8\ m/s^2$

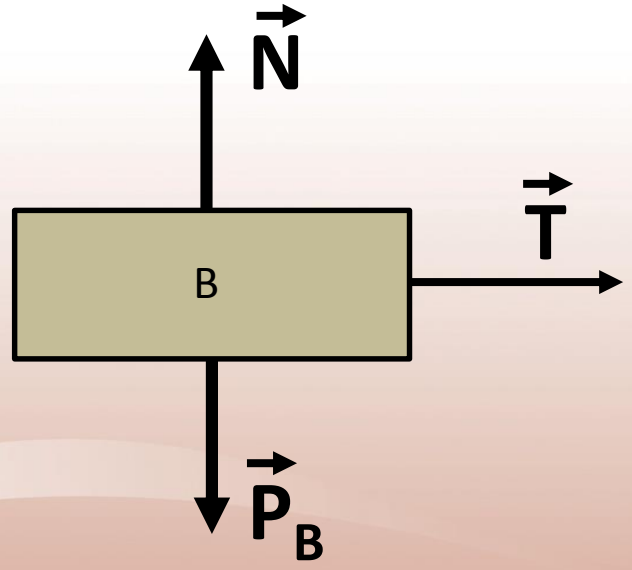
Lua: $g = 1{,}6\ m/s^2$

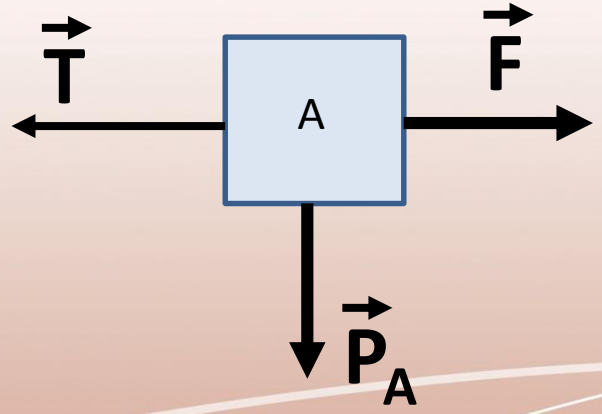
Forças exercidas por fios (tração) ($\vec{T}$)



Fio ideal: fio perfeitamente flexível, inextensível e de massa nula.

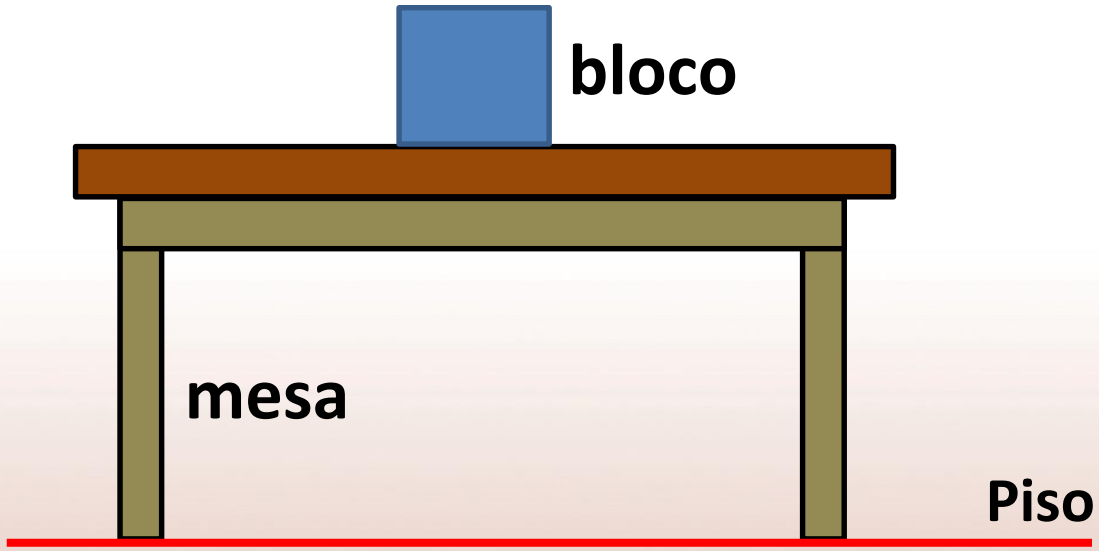
Forças exercidas por fios (tração) ($\vec{T}$)





Força Normal ($\vec{N}$)

A força normal é a força que surge quando um corpo está sobre uma superfície de apoio.



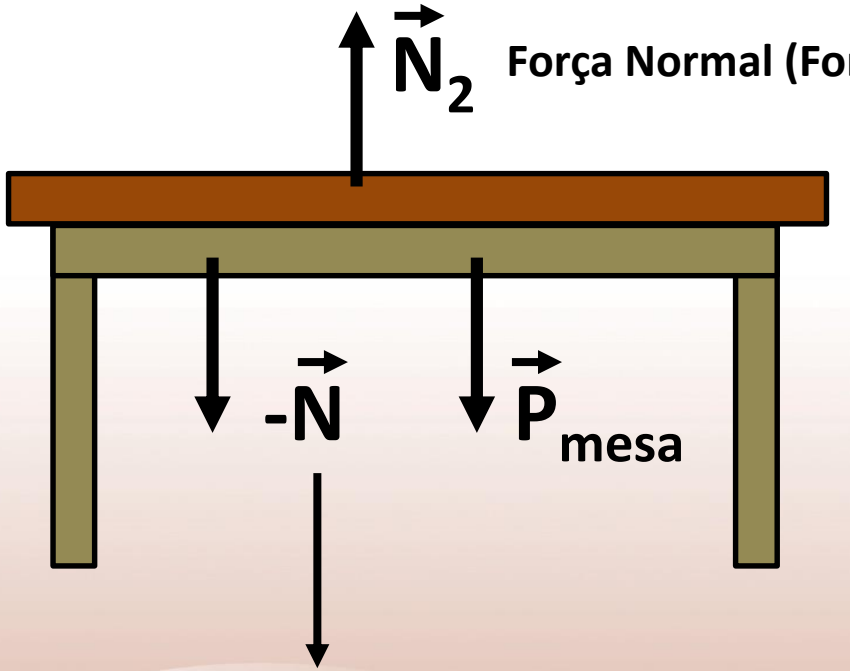
Força Normal (Força que a mesa exerce no bloco)

Força Peso (Força que a Terra exerce no bloco)

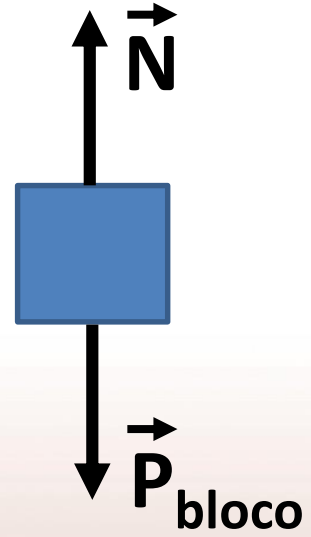
PESO, NORMAL E TRAÇÃO

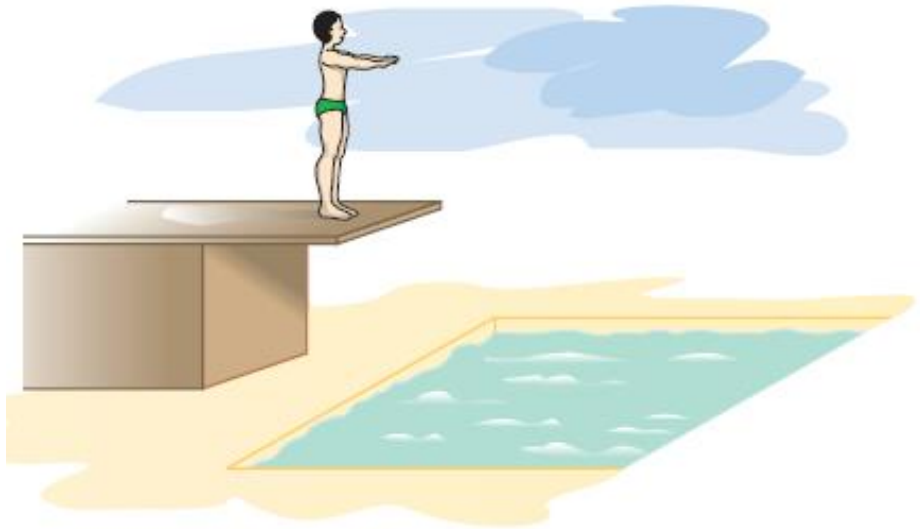
Força Normal ($\vec{N}$)

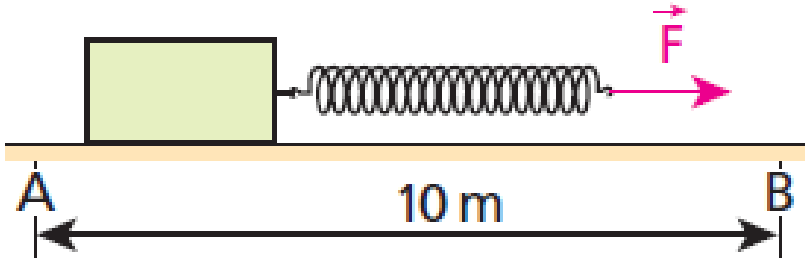
A força normal é a força que surge quando um corpo está sobre uma superfície de apoio.

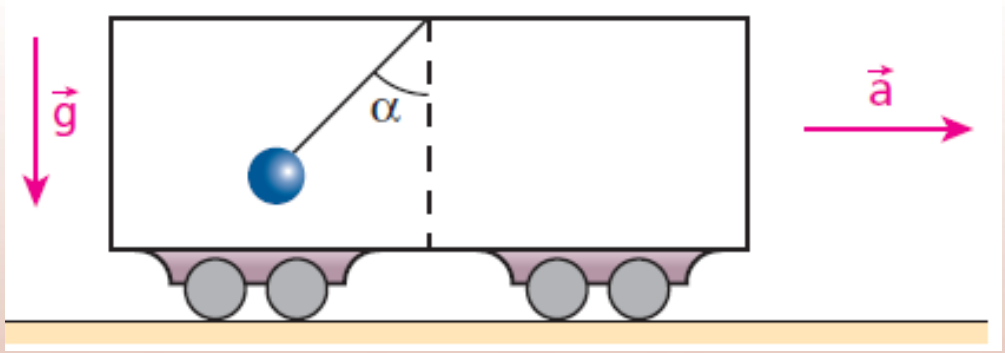


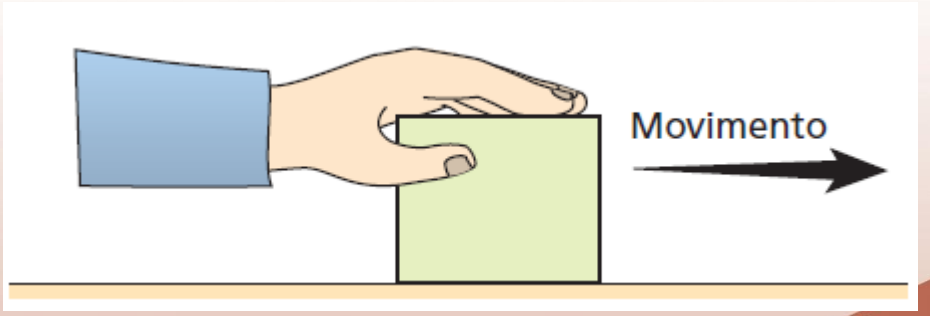
Força Normal (Força que o bloco exerce na mesa)

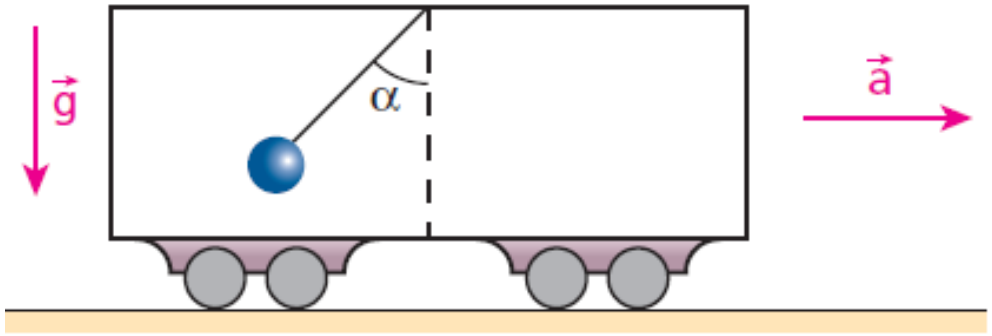


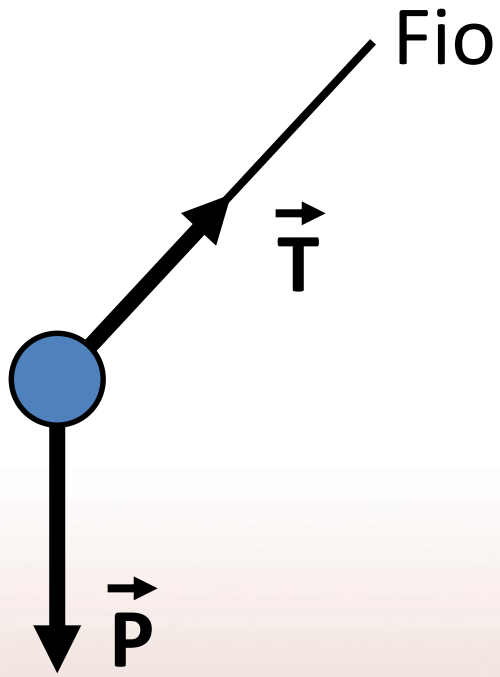


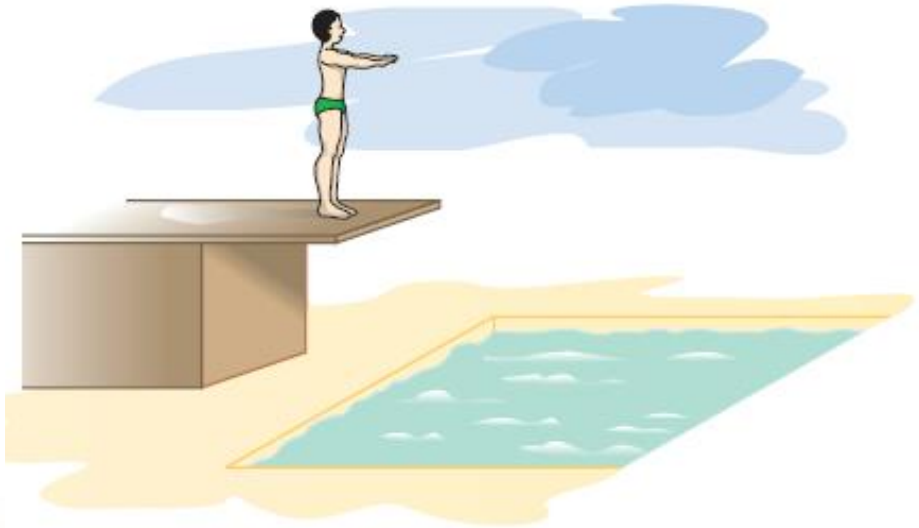

F
A
10 m
B

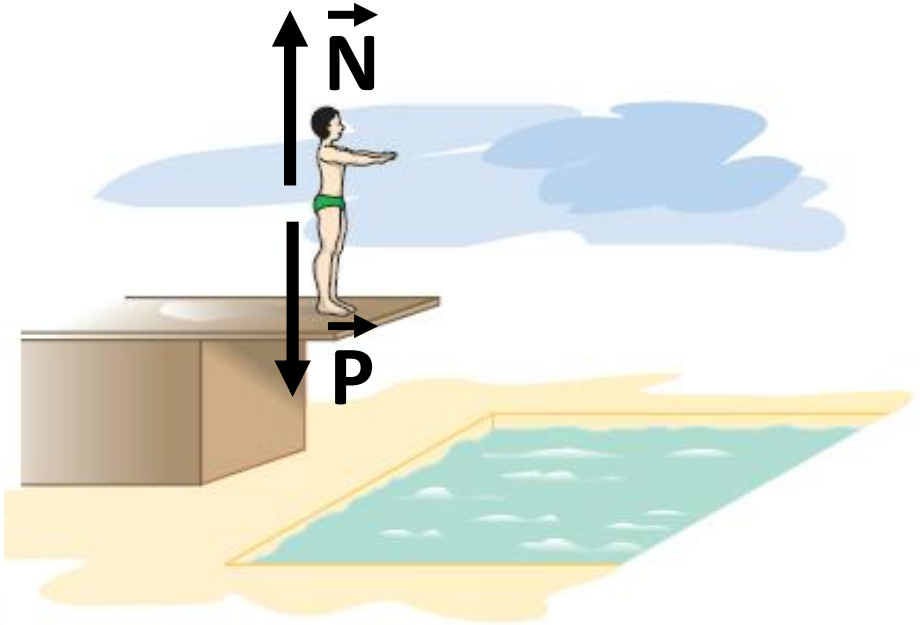

g
α
a

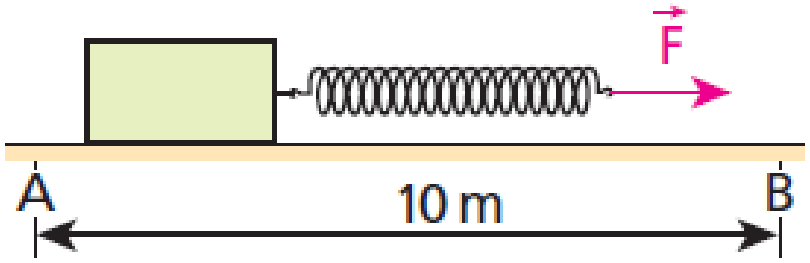

Movimento

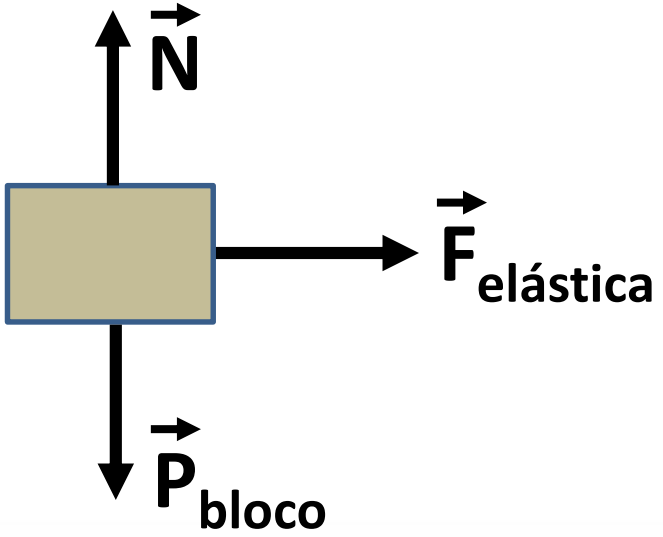

$\vec{g}$
α
$\vec{a}$

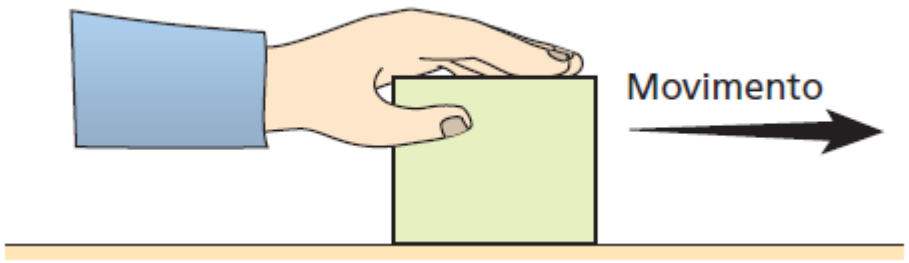

Fio
$\vec{T}$
$\vec{P}$

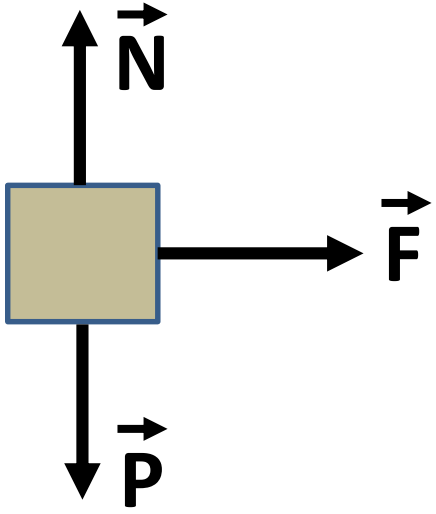


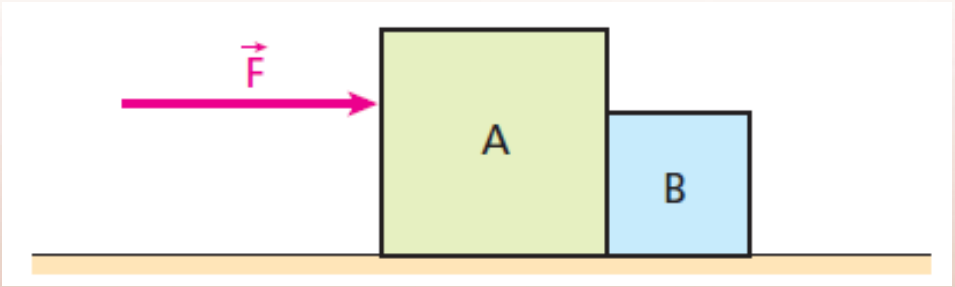

N
P

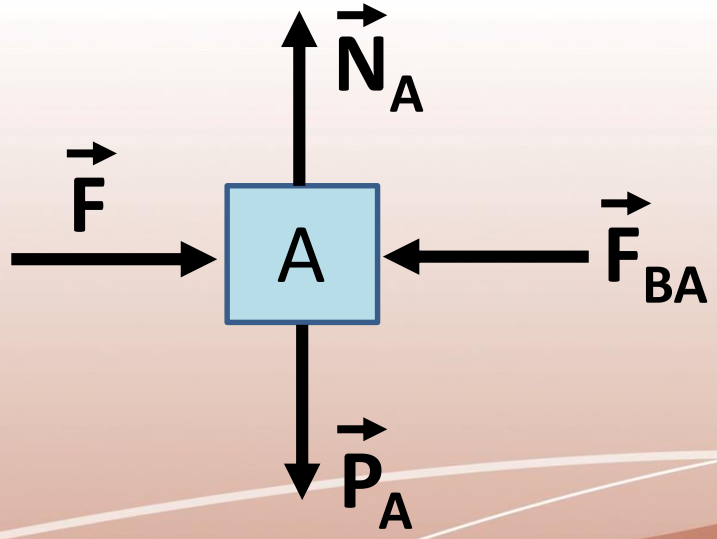

F
A
10 m
B

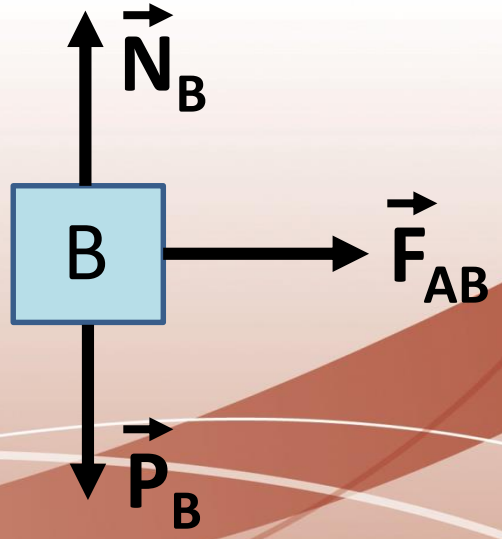

N
F elástica
P bloco

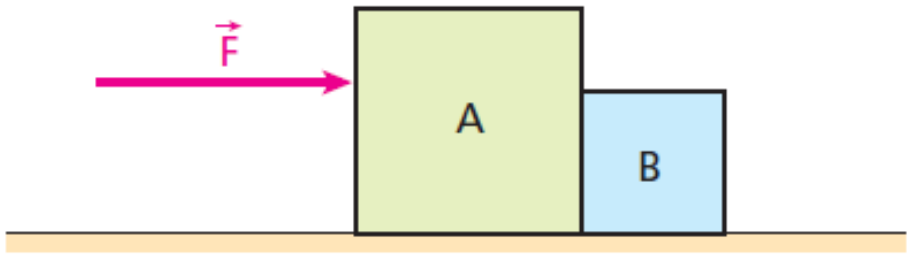

Movimento

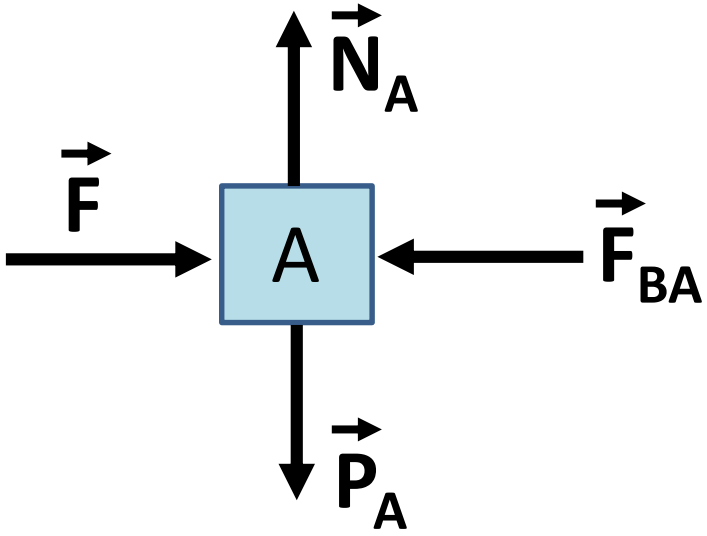

$\vec{N}$
$\vec{F}$
$\vec{P}$

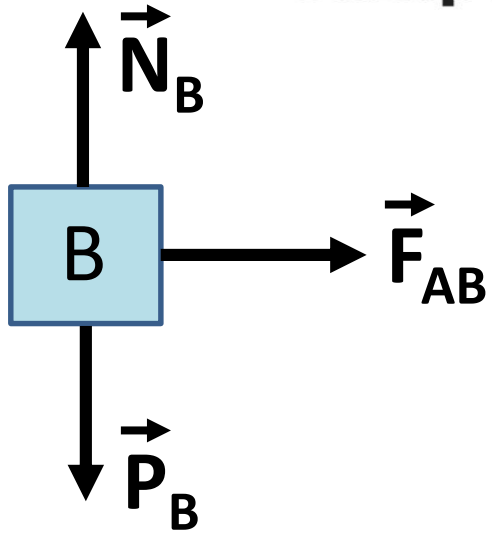

$\vec{F}$
A
B

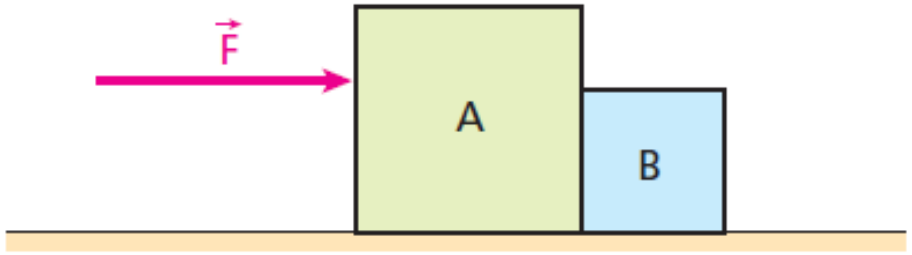

$\vec{N}_A$
$\vec{F}$
A
$\vec{F}_{BA}$
$\vec{P}_A$

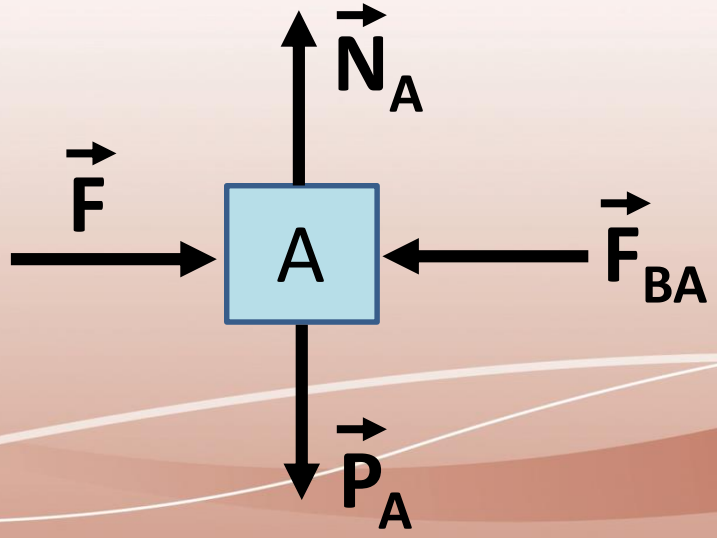

$\vec{N}_B$
B
$\vec{F}_{AB}$
$\vec{P}_B$

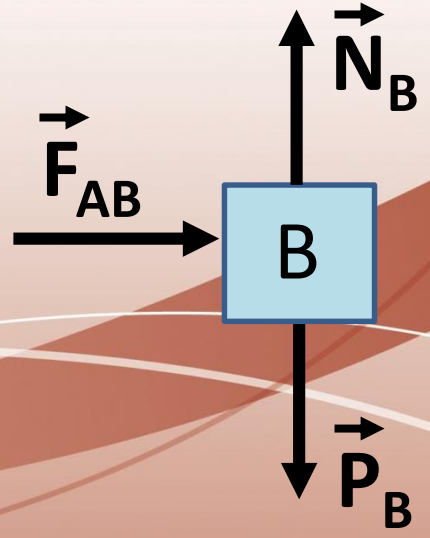

F
A
B

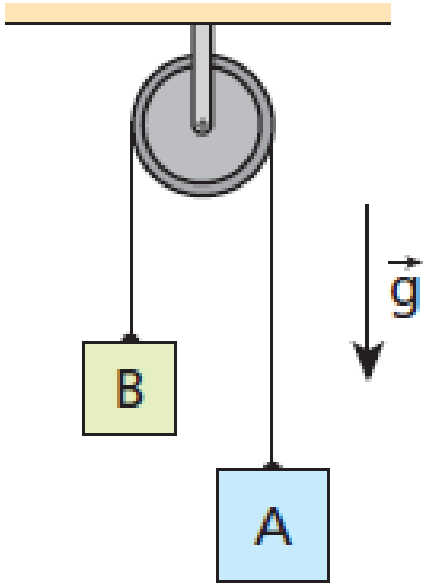

N_A
F
A
F_BA
P_A

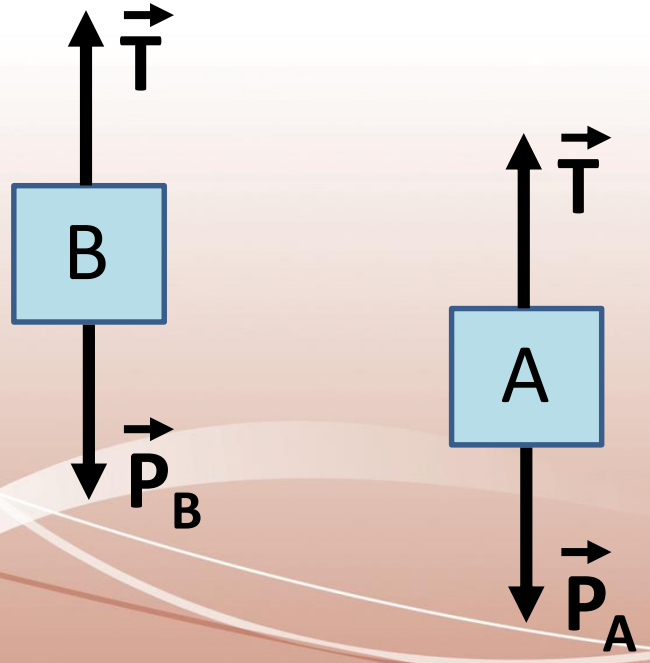

N_B
B
F_AB
P_B


F
A
B


N_A
F
A
F_BA
P_A


N_B
F_AB
B
P_B





$$\begin{array}{r} P_A - T = m_A \cdot a \\ T - P_B = m_B \cdot a \end{array} \quad +$$

$$P_A - P_B = (m_A + m_B) \cdot a$$

$$m_A g - m_B g = (m_A + m_B) \cdot a$$

$$g(m_A - m_B) = (m_A + m_B) \cdot a$$