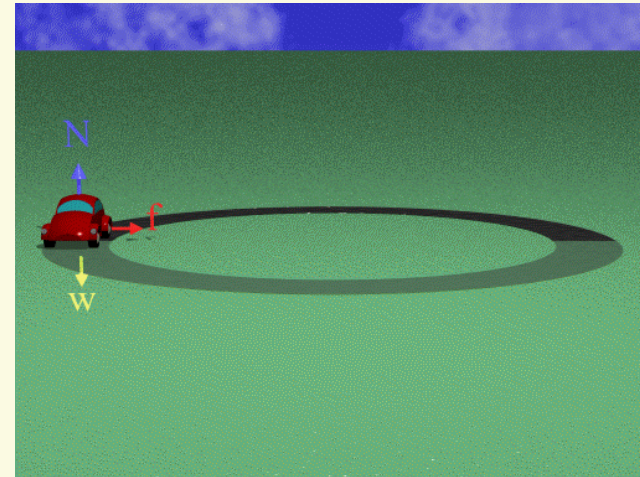
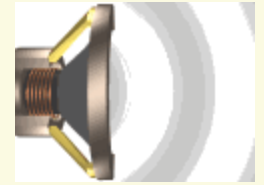


## Aula 2: Interação mecânica

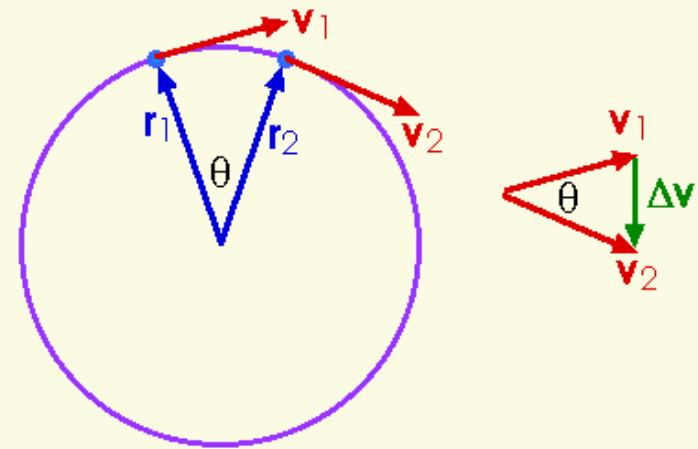
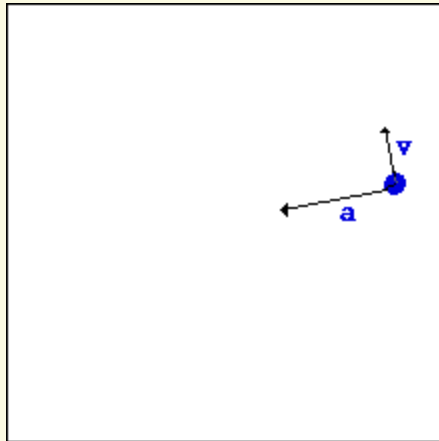
1. Movimento circular
2. Força gravítica
3. Força de tensão
4. Diagrama de forças
5. Forças de contacto



# Aceleração normal: animação

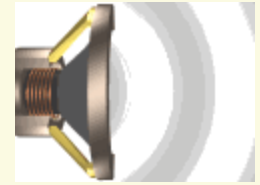


## 1. Movimento circular

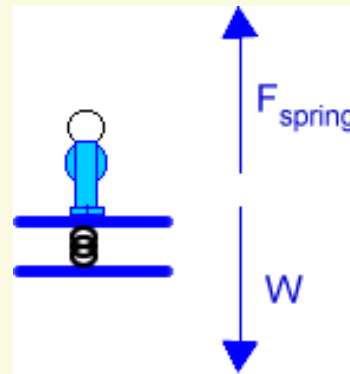
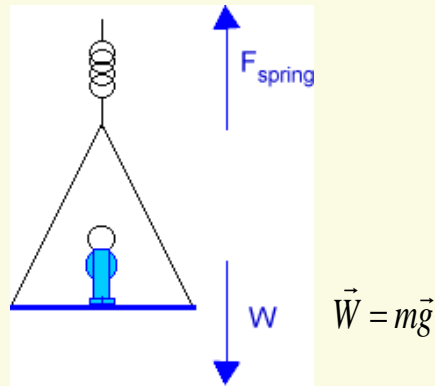


# Interacção gravítica: animação

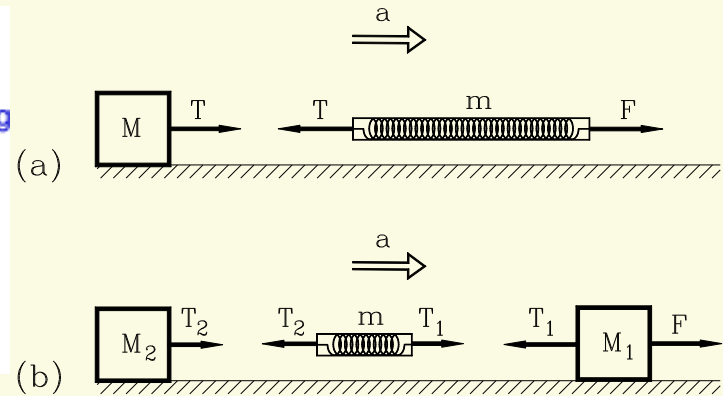
## Simulação: tensão e peso



### 2. Força gravítica

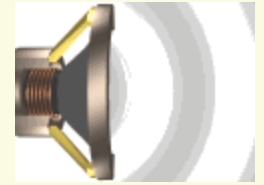


### 3. Força de tensão



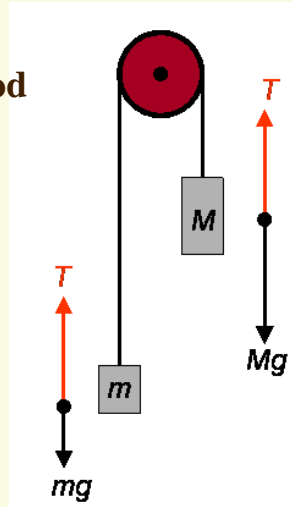
# Simulação: máquina de Atwood

# Simulação: plano inclinado

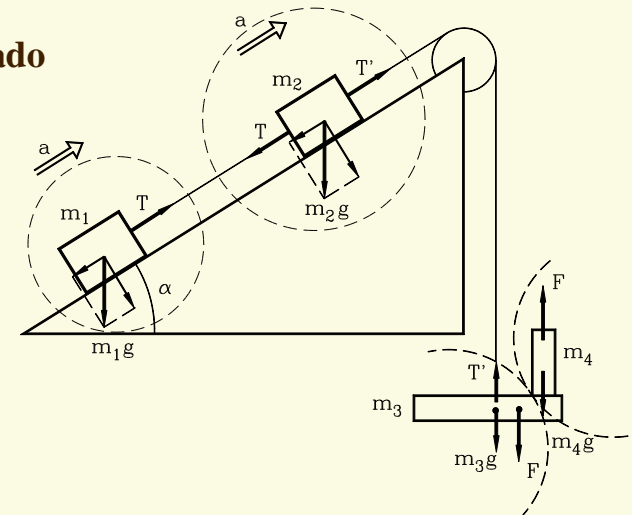


## 4. Diagrama de forças

Máquina de Atwood

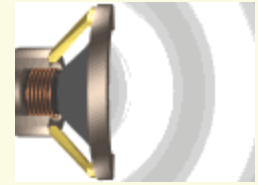


Plano inclinado

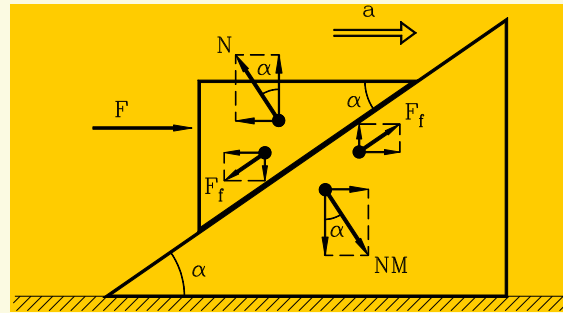


Simulação: atrito estático e cinético

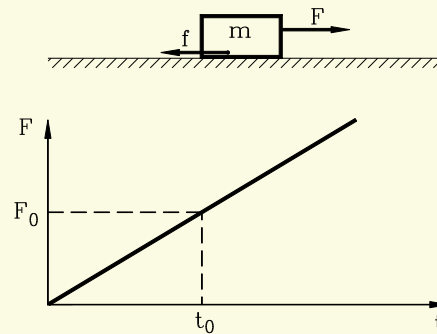
Simulação: atrito no plano inclinado



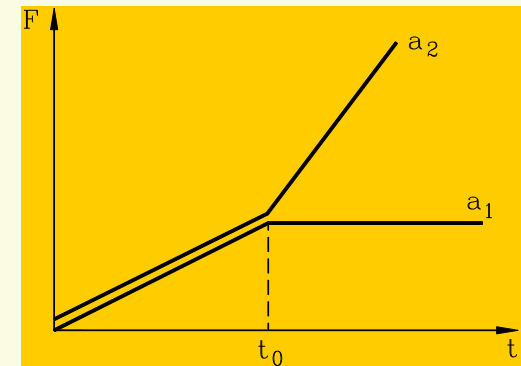
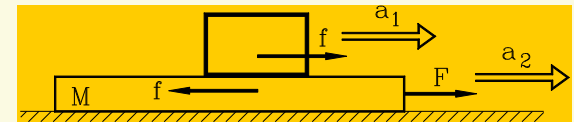
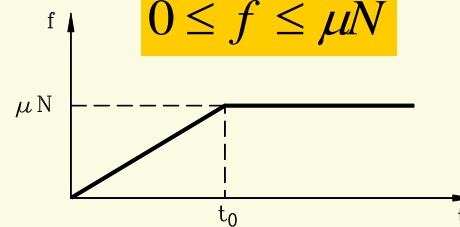
## 5. Forças de contacto



*Força normal*



$$0 \leq f \leq \mu N$$



*Força de atrito*