

Fonctionnement du moteur physique

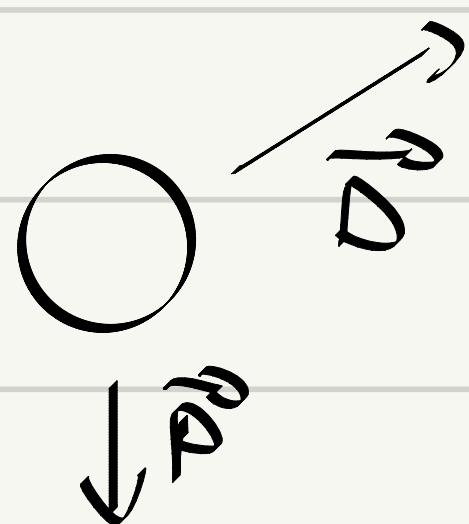
Cas de base: Physique réaliste

(gravité + réaction + vent + friction de l'air)

1) Cas gravité:

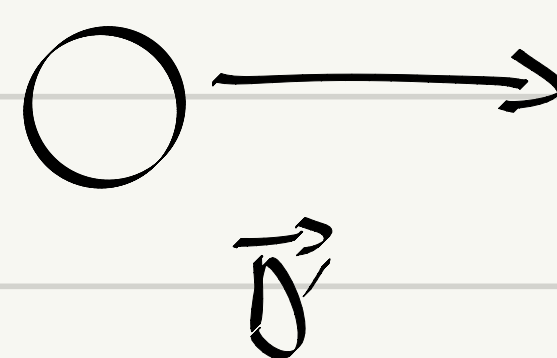
\vec{D} : direction

$$\vec{P} = M \times \vec{G} \quad (\text{poid} = \text{mass} \times \text{gravité})$$

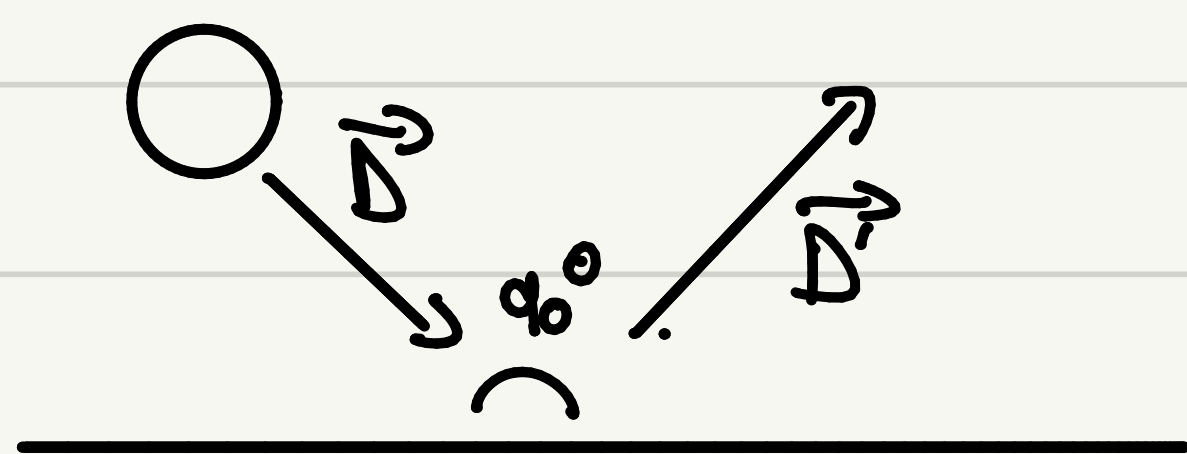


\Rightarrow
T+l

$$\vec{D}' = \vec{D} + \vec{P}$$

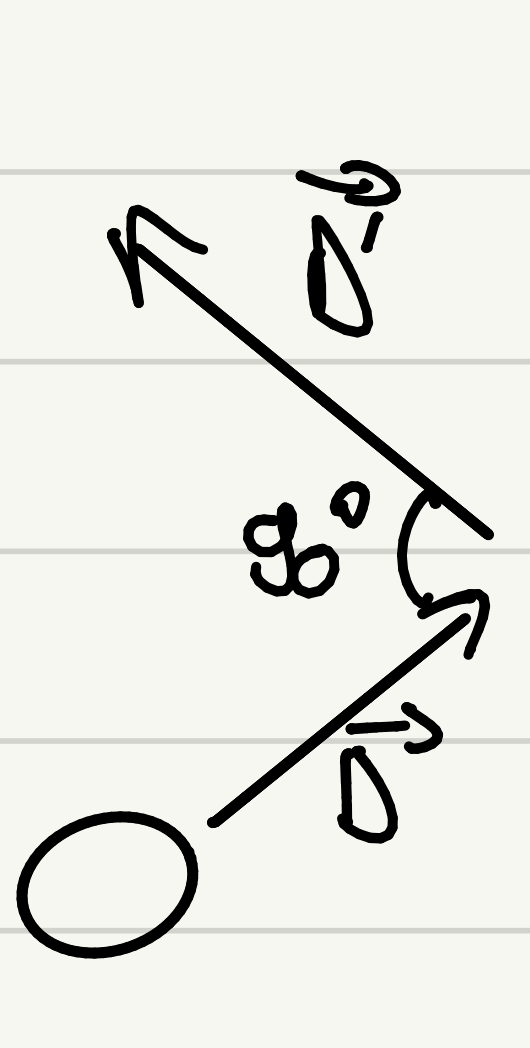


2) Cas réaction:



$$\vec{D}' = \vec{D} \times \text{reaction}$$

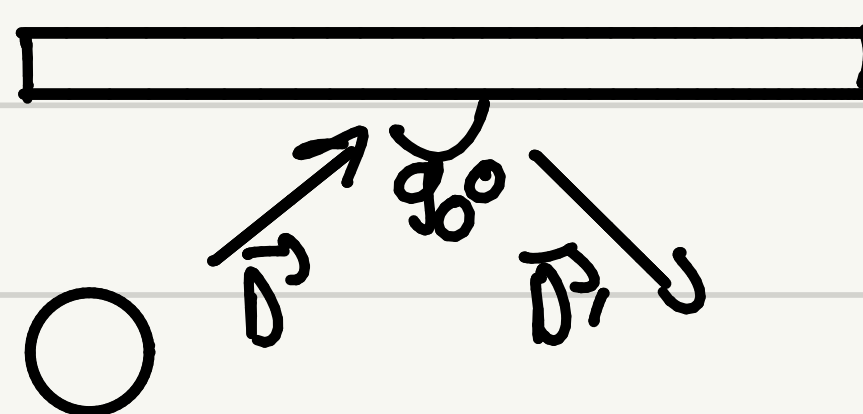
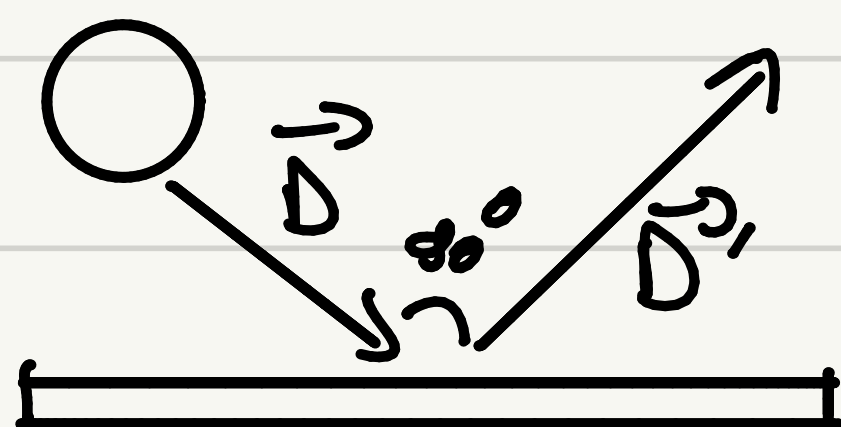
(reaction = % d'énergie non-absorbé par le sol ou mur) $\Rightarrow (\vec{D}' < \vec{D})$



Cas pour le jeu:

Aucune perte d'énergie (reaction = 100%)

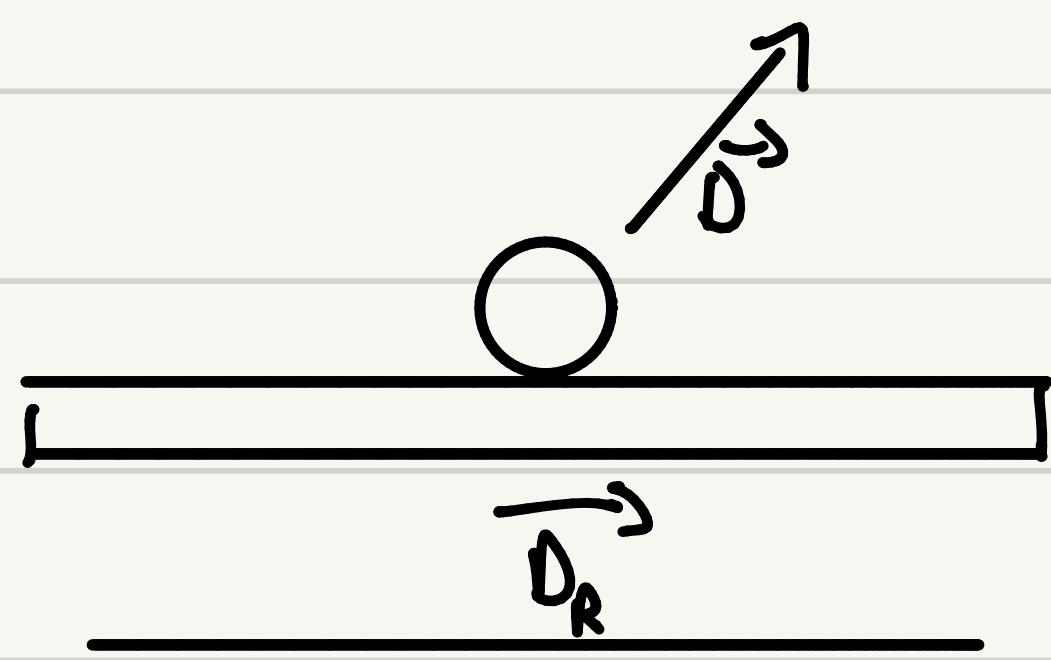
1) Cas de base racket



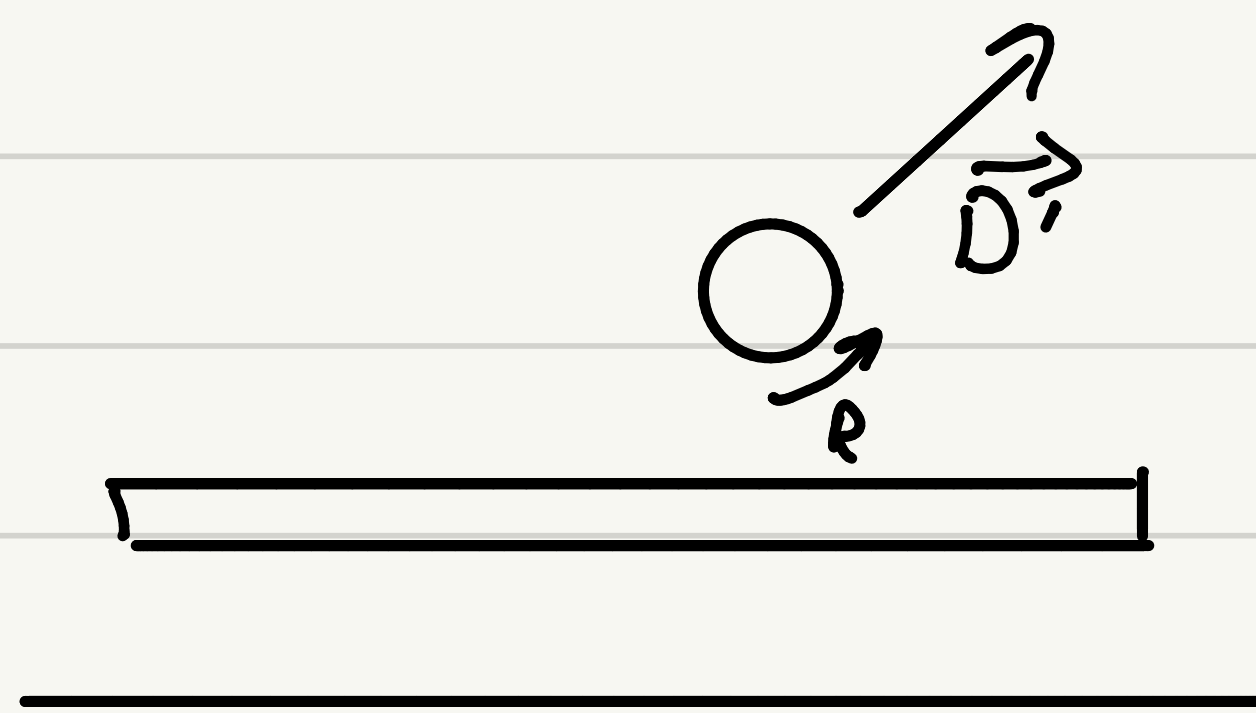
2) Cas création d'effet avec le racket

\vec{R} = direction de la raquette

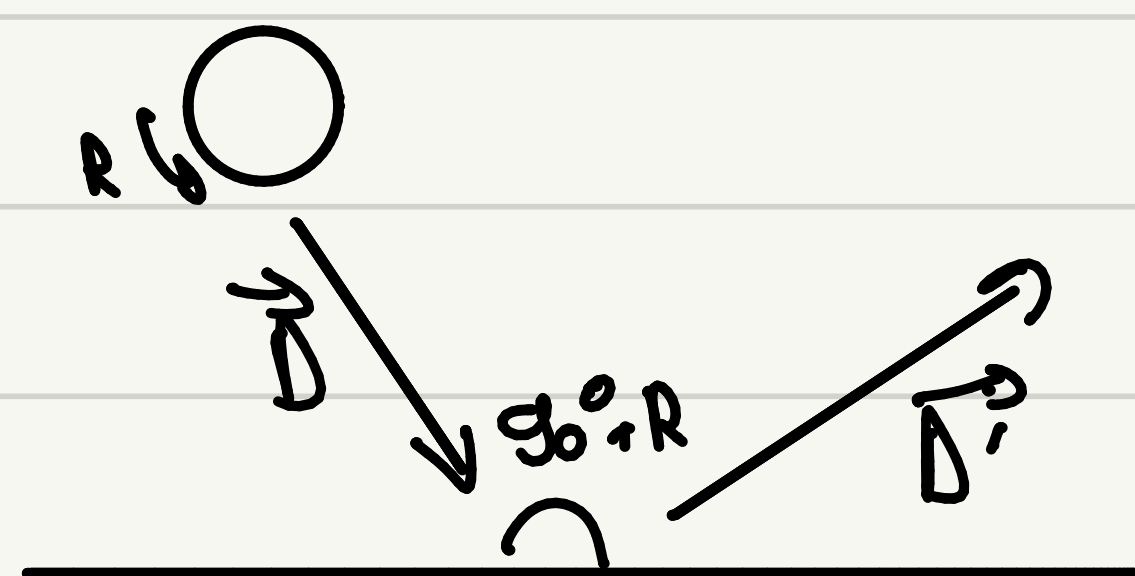
R = rotation de la balle



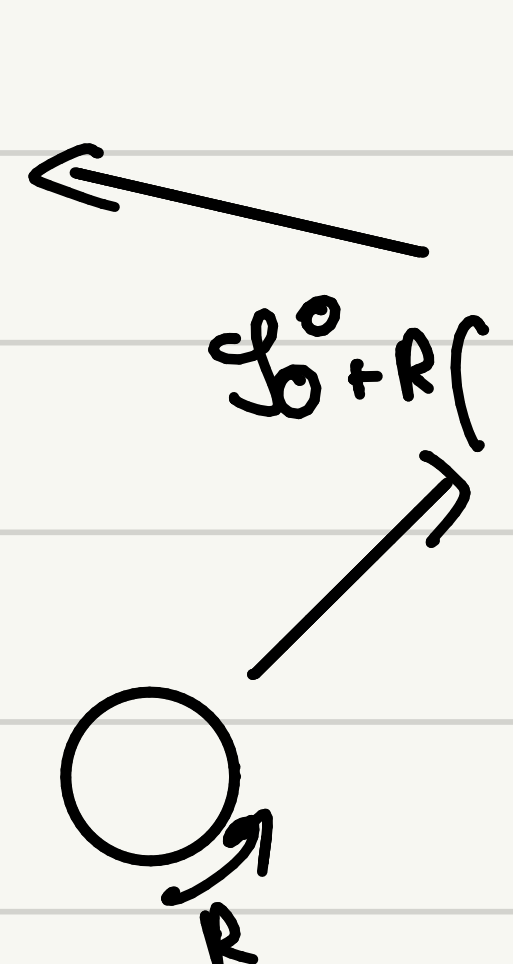
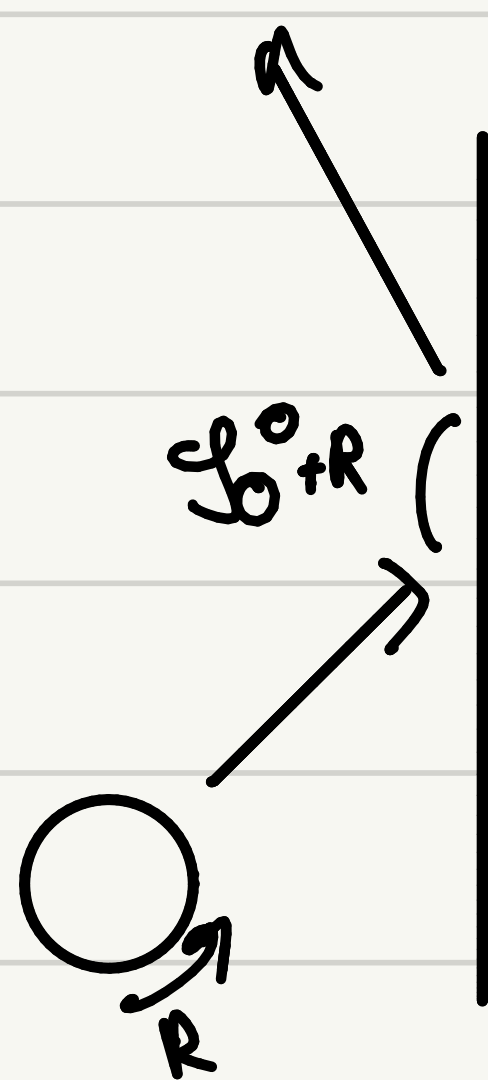
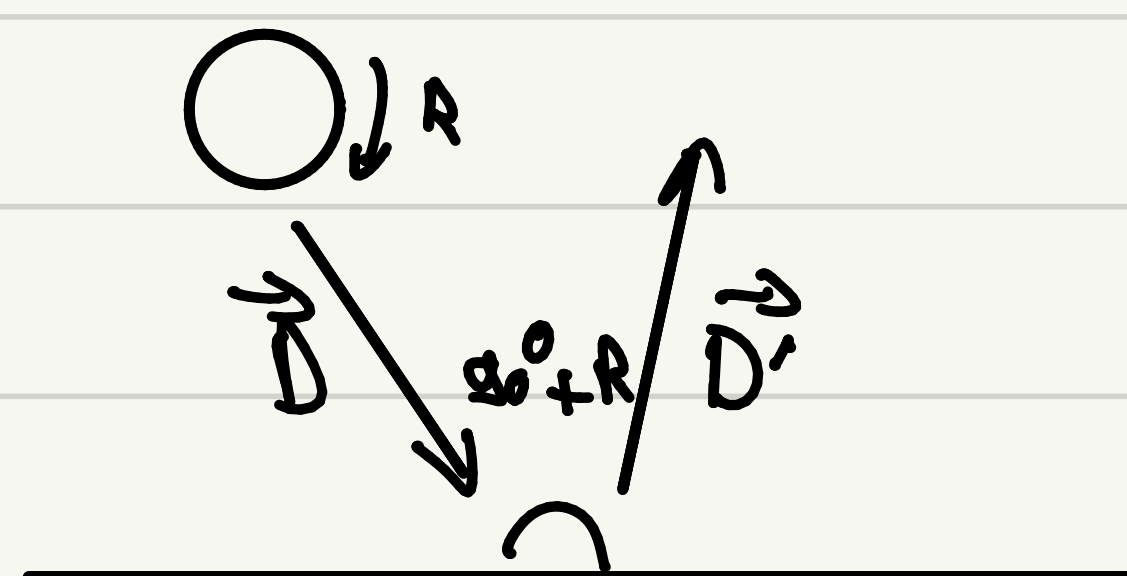
\Rightarrow
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Avec $R > 0$



Avec $R < 0$



Après chaque collision, $|R'| = |R| - 4$

