



7<sup>th</sup> French Physicists'  
*Tournament*



Société Française  
de Physique

COMMISSION JEUNES

# Captain's Fight 4 backup

FPT 2020  
February 7–8<sup>th</sup>

# **1. Question**



# **2. Solution**

You have 30 seconds to solve  
the following question :



What is the energy equivalent of  
the mass of the Higgs boson, given  
in unit of RedBull (35.5 cL) ?

**1. Question**



**2. Solution**

## Data and sources

 Calorie in 100 mL of Red Bull: 46 kcal

 Higgs boson mass: 125.35 GeV/c<sup>2</sup>

 1 GeV = 3.8293 × 10<sup>-14</sup> kcal

$$N = \frac{125.35 \times 3.8293 \times 10^{-14}}{46 \times 3.55} = 10^{-13.53} \text{ RedBull}$$