2006

1 Fission de l'uranium

$$1.4.^{235}_{~92}\mathrm{U} + \mathrm{n}[1][0] \rightarrow {}^{146}_{~58}\mathrm{Ce} + {}^{85}_{34}\mathrm{Se} + 5\mathrm{n}[1][0]$$

 $1.6~165,5~\mathrm{MeV}$

 $1.7\ 1700\ \mathrm{kg}$

2 Relativité restreinte

$$3.3.1 \ v_{rel} = 0.1 \cdot c$$

$$3.3.2~2.6~{\rm keV} = 4.1 \cdot 10^{-16}~{\rm J}$$

 $3.3.4\ 2,6\ kV$

3 Exercice

 $4.1 \ 0.112\cos(3.6t)$

 $4.2\ 0,\!016\ \mathrm{J}$

 $4.3~0,4~{\rm m/s}$

 $4.4\ -0.37\ \mathrm{m/s}\,;\ -0.54\ \mathrm{m/s^2}$