Neutron breaks into proton and electron. The energy released during this process.

Free neutrons decay by emission of an electron and an electron antineutrino to become a proton, a process known as beta decay:

$n \to p + e + \widetilde{\upsilon_e}$

$n$ – neutron

$p$ – proton

$e$ – electron

$\widetilde{\upsilon_e}$ - electron antineutrino

The law conservation of energy for this process:

$E_{in} = E_{fin}$

$E_{in}$ - energy in initial state

$E_{fin}$ - energy in final state

$E_{in} = m_n c^2$

$E_{fin} = m_p c^2 + m_e c^2 + m_\upsilon c^2 + Q$

$m_n, m_p, m_e, m_\upsilon$ - masses of neutron, proton, electron and electron antineutrino

$m_\upsilon \ll m_e$ so $m_\upsilon \approx 0$

$m_n c^2 = m_p c^2 + m_e c^2 + m_\upsilon c^2 + Q$

energy released during this process:

$Q = m_n c^2 - \left(m_p c^2 + m_e c^2\right) = 0.782343 \text{ MeV}$

Answer: $Q = 0.782343 \text{ MeV}$