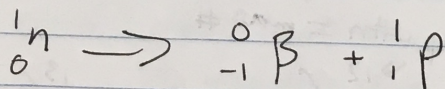
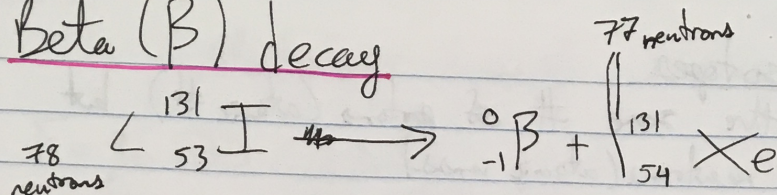
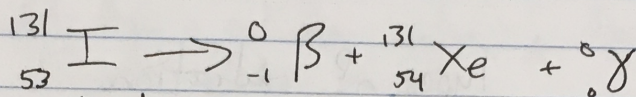


② Beta (β) decay

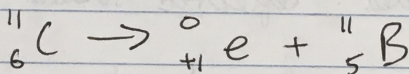


③ Gamma (γ) radiation

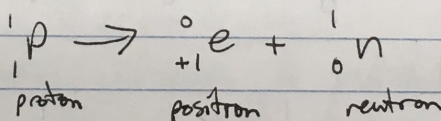
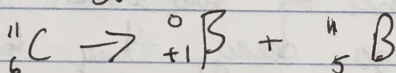
$\hookrightarrow$ gamma $\rightarrow$ no mass, no charge



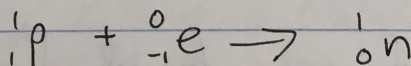
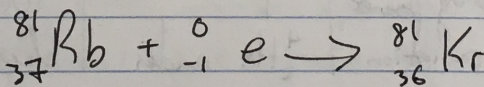
- 1st 3 initially identified, have since discovered more
- ④ Positron Emission - similar to β , except giving off positron
positrons have same mass, opposite charge
proton $\rightarrow$ neutron



or



- ⑤ Electron Capture - nucleus captures e^- from outside
nucleus & incorporates it into nucleus
proton $\rightarrow$ neutron



Nuclear Stability

- A plot of $\#n$ vs. $\#p$ shows a band of stability for nuclei
- For stable nuclei, neutrons: protons increases as atomic # $\uparrow$
 $\hookrightarrow$ ratio 1:1 for lower, $\uparrow$ neutrons as you go up in atomic #