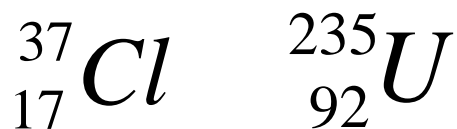


In class activity # 1

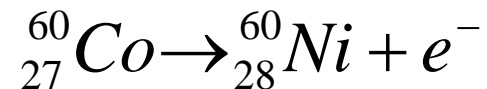
- State the number of protons and neutrons



- Protons 17 92
- Neutrons 20 143

In class activity #2

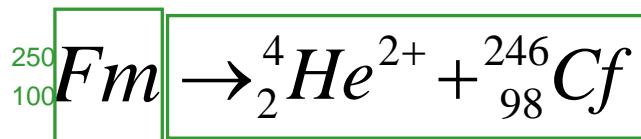
- What type of radioactive decay is occurring in this nuclear decay equation?



- Beta Decay:
- no change in mass, increase atomic number by 1

In Class Activity # 3

- Write a balanced nuclear decay equation for Fermium-250 that undergoes alpha decay



In class activity # 4

- 400 mg of Co-60
- Half life is 5.25 years
- How much is left after 15.75 years?

First determine how many half lives have gone by: $15.75 \text{ years} / 5.25 \text{ years} = 3 \text{ hL}$

Then calculate how much is left by

$$R = I \frac{1}{2^n} = 400\text{mg} \cdot \frac{1}{2^3} = 400\text{mg} \cdot \frac{1}{8} = 50\text{mg}$$

Or dividing 400 mg by 2 three times