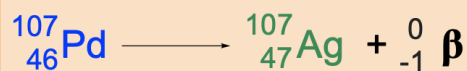


## CONCEPT: BAND OF STABILITY: BETA DECAY

- **Beta Decay** happens for isotopes to the \_\_\_\_\_ of the Band (Valley) of Stability.

### Neutron-to-Proton Plot

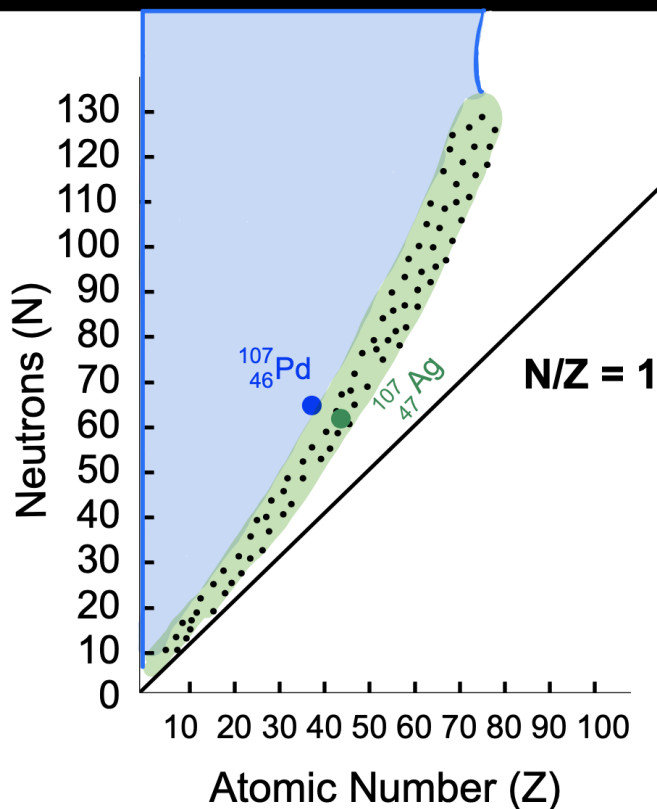
#### $\beta$ -decay



parent  
nuclide

daughter  
nuclide

- ☐ These isotopes have an \_\_\_\_\_ of  $n^\circ$
- ☐ Beta Decay helps to convert  $n^\circ$  to \_\_\_\_\_



**EXAMPLE:** Provide the identity of the daughter nuclide created from the beta decay of magnesium-28.

- a) Argon-20                      b) Sodium-28                      c) Phosphorus-17                      d) Aluminum-28

**PRACTICE:** How many beta decays would it take to transform tungsten-184 into iridium-184?

- a) 5                                      b) 1                                      c) 3                                      d) 4