

# Examples of isotope equations involving alpha decay, beta decay, positron decay, and gamma radiation

1. Alpha decay:  ${}_{93}^{237}\text{Np} \longrightarrow \dots \text{Pa} + {}_2^4\text{He}$
2. Alpha decay:  ${}_{92}^{238}\text{U} \longrightarrow \dots \text{Th} + {}_2^4\text{He}$
3. Alpha decay:  ${}_{92}^{235}\text{U} \longrightarrow \dots \text{Th} + {}_2^4\text{He}$
4. Alpha decay:  ${}_{88}^{226}\text{Ra} \longrightarrow \dots \text{Rn} + {}_2^4\text{He}$
5. Alpha decay:  ${}_{84}^{210}\text{Po} \longrightarrow \dots \text{Pb} + {}_2^4\text{He}$
6. Beta decay:  ${}_{6}^{14}\text{C} \longrightarrow \dots \text{N} + \beta^{-} + \bar{\nu}_e$
7. Beta decay:  ${}_{82}^{210}\text{Pb} \longrightarrow \dots \text{Bi} + \beta^{-} + \bar{\nu}_e$
8. Beta decay:  ${}_{1}^3\text{H} \longrightarrow \dots \text{He} + \beta^{-} + \bar{\nu}_e$
9. Beta decay:  ${}_{90}^{234}\text{Th} \longrightarrow \dots \text{Pa} + \beta^{-} + \bar{\nu}_e$
10. Beta decay:  ${}_{53}^{131}\text{I} \longrightarrow \dots \text{Xe} + \beta^{-} + \bar{\nu}_e$
11. Positron decay:  ${}_{6}^{11}\text{C} \longrightarrow \dots \text{B} + \beta^{+} + \nu_e$
12. Positron decay:  ${}_{7}^{13}\text{N} \longrightarrow \dots \text{C} + \beta^{+} + \nu_e$
13. Positron decay:  ${}_{8}^{15}\text{O} \longrightarrow \dots \text{N} + \beta^{+} + \nu_e$
14. Positron decay:  ${}_{9}^{18}\text{F} \longrightarrow \dots \text{O} + \beta^{+} + \nu_e$
15. Positron decay:  ${}_{11}^{22}\text{Na} \longrightarrow \dots \text{Ne} + \beta^{+} + \nu_e$
16. Gamma decay:  ${}_{27}^{60}\text{Co} \longrightarrow \dots \text{Co} + \gamma$
17. Gamma decay:  ${}_{55}^{137}\text{Cs} \longrightarrow \dots \text{Cs} + \gamma$
18. Gamma decay:  ${}_{53}^{131}\text{I} \longrightarrow \dots \text{I} + \gamma$
19. Gamma decay:  ${}_{88}^{226}\text{Ra} \longrightarrow \dots \text{Ra} + \gamma$
20. Gamma decay:  ${}_{90}^{234}\text{Th} \longrightarrow \dots \text{Th} + \gamma$