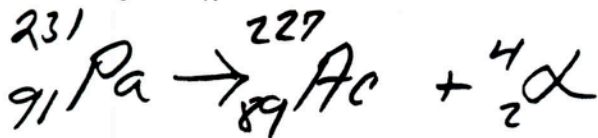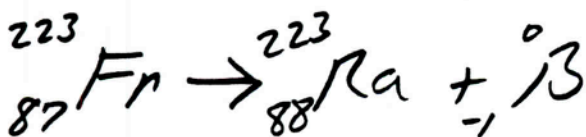# Section 21.2 (pages 645 - 647)

Complete the following assignment in your class notebook with the heading: WS Nuclear Decay Equations

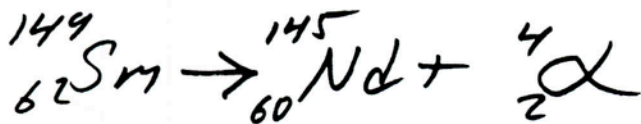(Key)

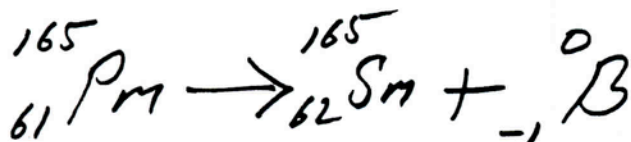1. Write a nuclear equation for the alpha decay of $^{231}_{91}Pa$.

$$^{231}_{91}Pa \rightarrow \,^{227}_{89}Ac + \,^{4}_{2}\alpha$$

2. Write a nuclear equation for the beta decay of $^{223}_{87}Fr$.

$$^{223}_{87}Fr \rightarrow \,^{223}_{88}Ra + \,^{0}_{-1}\beta$$

3. Write a nuclear equation for the alpha decay of $^{149}_{62}Sm$.

$$^{149}_{62}Sm \rightarrow \,^{145}_{60}Nd + \,^{4}_{2}\alpha$$

4. Write a nuclear equation for the beta decay of $^{165}_{61}Pm$.

$$^{165}_{61}Pm \rightarrow \,^{165}_{62}Sm + \,^{0}_{-1}\beta$$

5. Write a nuclear equation for the alpha decay of $^{249}_{101}Md$.

$$^{249}_{101}Md \rightarrow \,^{245}_{99}Es + \,^{4}_{2}\alpha$$
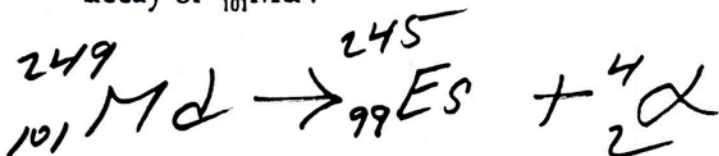
6. Write a nuclear equation for the alpha decay of $^{146}_{62}Sm$.

7. Write a nuclear equation for the beta decay of $^{198}_{85}At$.

8. Write a nuclear equation for the alpha decay of $^{150}_{64}Gd$.

9. Write a nuclear equation for the beta decay of $^{152}_{54}Xe$.

10. Write a nuclear equation for the beta decay of $^{120}_{55}Cs$.