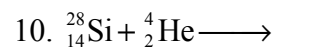
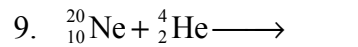
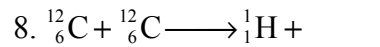
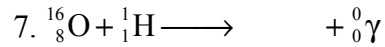
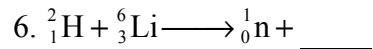
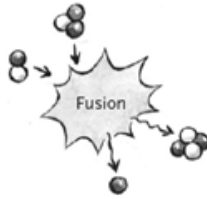
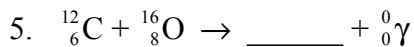
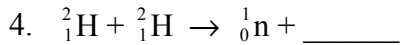
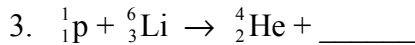
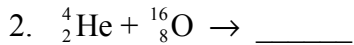
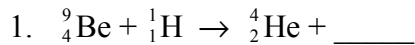


Complete the following fusion reactions.



11. Why does nuclear fusion require such high temperatures? What forces are involved and what is needed for two nuclei to successfully fuse together?
12. Why does the fusion of two He-4 nuclei require much higher temperatures than fusion of H-2 with H-3?
13. How is nuclear fission different from nuclear fusion? Describe the particles involved and the conditions necessary.
- For the next 3 questions, refer to the Average Mass per Nucleon Diagram**
14. Why is Fe considered the most stable nucleus?
15. What happens in both fusion and fission to release energy? What famous equation describes this process?
16. What process do elements lighter than Fe undergo to release energy? Elements heavier than Fe?