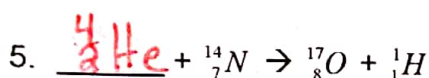
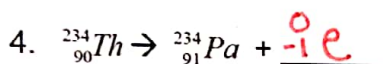
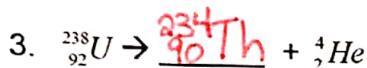
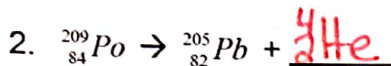
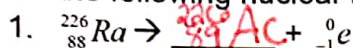
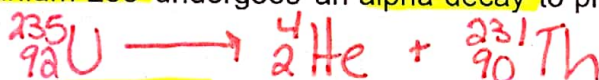


Complete the following nuclear reactions:



Write nuclear equations that describe the following processes.

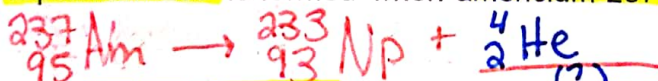
6. Uranium-235 undergoes an alpha decay to produce thorium-231.



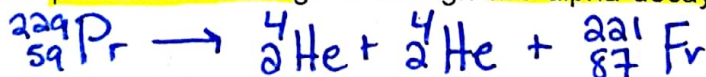
7. Lanthanum-144 becomes cerium-144 when it undergoes a beta decay.



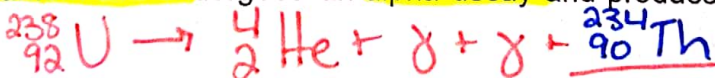
8. Neptunium-233 is formed when americium-237 undergoes a nuclear decay process.



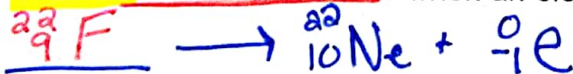
9. When protactinium-229 goes through two alpha decays, francium-221 is formed.



10. Uranium-238 undergoes an alpha decay and produces two gamma rays.



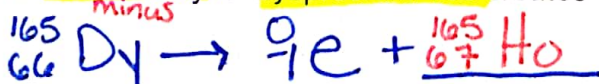
11. The neon-22 nucleus is formed when an element undergoes a beta decay.



12. Samarium-146 is produced when an element undergoes an alpha decay.

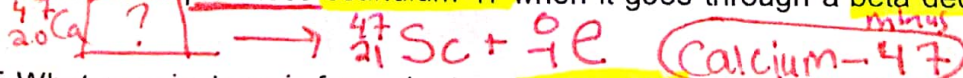


13. The beta decay of dysprosium-165 creates a new element.



Answer the following questions. Include the mass number when naming isotopes

14. What atom produces scandium-47 when it goes through a beta decay?



15. What new isotope is formed when curium-244 emits two alpha particles and three gamma rays?

