

Review Packet Answer Key

Periodic Table (Topic 5 in your review book)

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|-------|-------|
| 1. 3 | 11. 2 |
| 2. 3 | 12. 1 |
| 3. 4 | 13. 1 |
| 4. 3 | 14. 1 |
| 5. 3 | 15. 3 |
| 6. 1 | 16. 4 |
| 7. 1 | 17. 2 |
| 8. 4 | 18. 4 |
| 9. 4 | 19. 1 |
| 10. 1 | |
20. The Lewis dot diagram for Uut should show 3 dots since the element is placed in Group 13.
21. The charge on a nucleus is due to the number of protons in it, which is identified by the atomic number. Since Uut is element 113, the answer is +113 (positive charge because protons are positive in charge).
22. Any other Group 13 element would have similar chemical properties as Uut, especially the other metals in that Group, elements In and Tl.
23. Element 118 would be placed in Group 18.
24. The element Uuo has 118 protons, and the isotope Uuo-291 has 291 protons and neutrons combined. So the number of neutrons in Uuo-291 is $(291-118) = 173$.
25. The number of electrons in an atom of Uuo would be equal to the number of protons, so 118 electrons.
26. Reproducing scientific results is important so that those results can be verified, or confirmed, by other scientists. This has to happen before the discovery is considered factual.