

Test 1 Preparation Problems Key

1. I. 1.0 II. 0.447 III. 0.579
2. 22.5 lbs
3. I. 3.3 mL II. 26 cal III. 51% IV. 2.0×10^2 kisses
4. I. 88 protons, 140 neutrons, and 86 electrons II. ${}^{228}_{88}\text{Ra}^+$ III. ${}^{229}_{88}\text{Ra}^{2+}$ IV. ${}^{229}_{89}\text{Ac}^{3+}$
5. 107.90 amu
6. %Be = 12.46%, %P = 28.55%, %O = 58.99 %
7. $\text{C}_{52}\text{H}_{24}\text{Cl}_{24}\text{O}_8$
8. 1.7 M
9. 2.22×10^{23} atoms O
10. I. 2.31×10^{-5} M Pb^{2+} II. 4.92×10^{-8} M Zn^{2+} III. 1.28 M H_2O_2 IV. 3.759 M NaOH