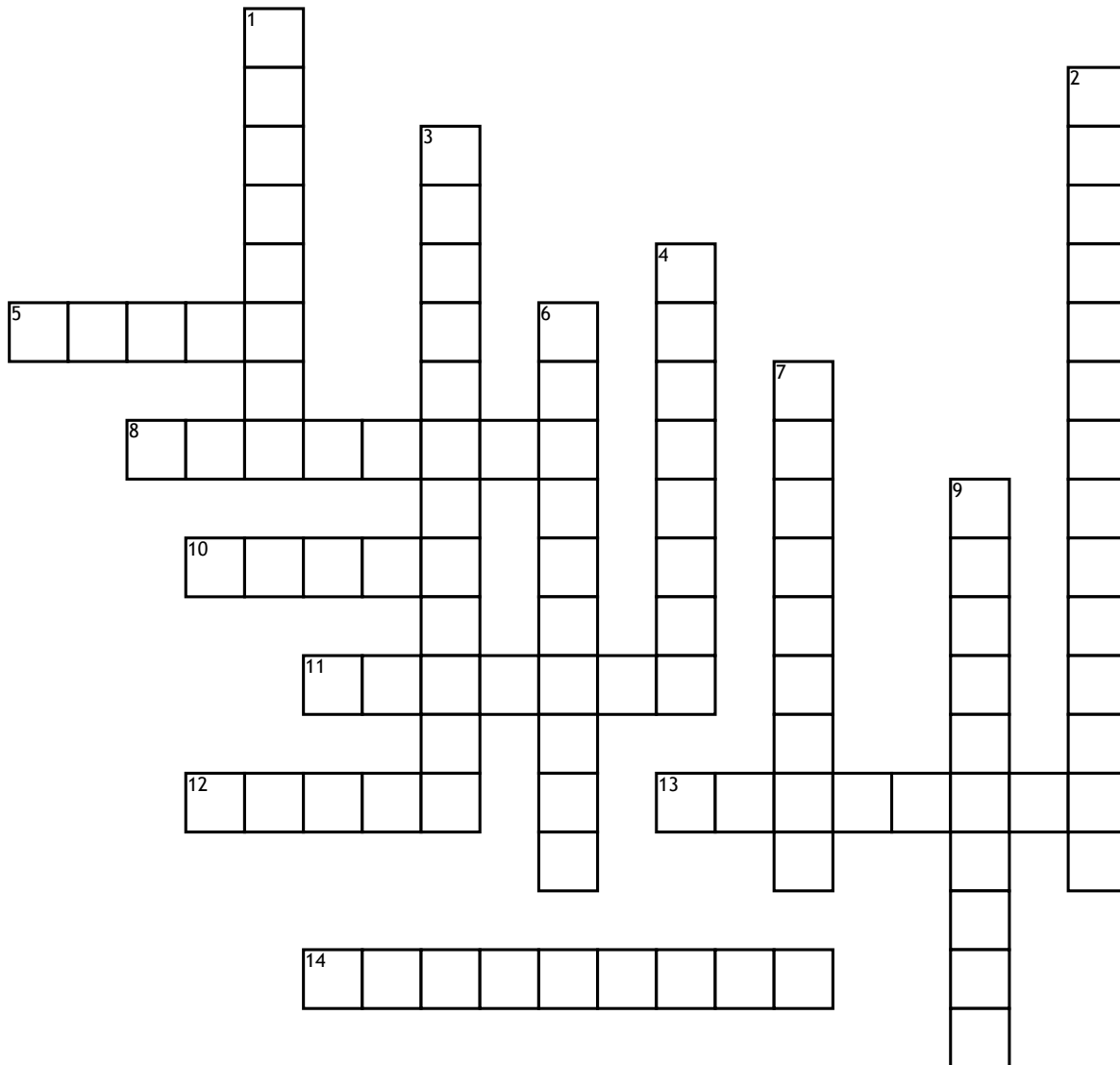


Nuclear Medicine Physics Review



Across

5. when it is removed from a PET detector it increases sensitivity but decreases the resolution

8. half-life that is the time it takes for half of the nuclide atoms to become stable

10. the registration of a single decay by a detector

11. atoms of different elements with identical numbers of nucleons

12. one is defined as 3.7×10^{10} decays per second

13. measurement of gamma or x-ray radiation exposure in air

14. tests the calibrator over a range of doses

Down

1. measure of readings of the dose calibrator in comparison with well-accepted standards

2. interaction when a small charged particle is deflected by the nuclei as it passes through matter

3. light-sensitive material usually a type of semiconductor on the end of a photomultiplier tube

4. atoms of different elements that contain identical numbers of neutrons but different protons

6. restricts photon entry to the crystal so each point in the image corresponds to a point in the source

7. one radioactive decay per second

9. half-life that reflects the half-time for excretion of the material from the organ or whole body