

## Earth Science: Chapter 5, Lesson 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Section: \_\_\_\_\_

1. **Explain** How does radioactive dating allow scientists to accurately date rocks?

2. **Evaluate** How important are radioactive isotopes in determining the age of Earth?

3. **Explain** Why is a radioactive isotope with a long half-life useful in dating very old rocks?

4. **Analyze** Why has absolute-age dating been more useful than relative-age dating in determining the age of Earth?

\_\_\_\_\_ 5. Why has absolute-age dating been more useful than relative-age dating in determining the age of Earth

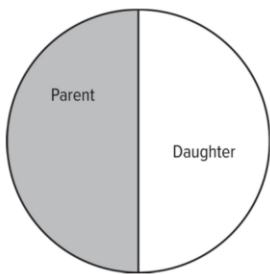
- A. amount of radioactivity
- B. number of uranium atoms
- C. ratio of neutrons and electrons
- D. ratio of parent and daughter isotopes

\_\_\_\_\_ 6. **Explain** What are isotopes?

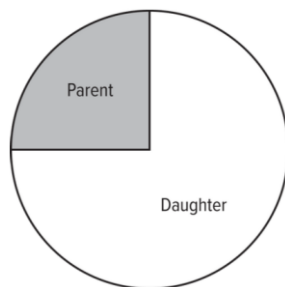
- A. atoms of the same element with different numbers of electrons but the same number of protons
- B. Atoms of the same element with different numbers of electrons but the same number of neutrons
- C. atoms of the same element with different numbers of neutrons but the same number of protons
- D. atoms of the same element with equal numbers of protons and neutrons

\_\_\_\_\_ 7. **Analyze** Which pie chart shows the ratio of parent to daughter after three half-lives?

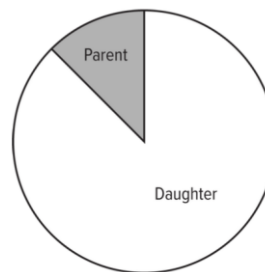
A.



B.



C.



D.

