

Radioactivity Test

Multiple Choice: Write the correct answer on the blank provided for each question below.

- _____ 1) Which of the following types of radiation gives off a stream of negative particles?
A. Alpha decay.
B. Beta decay.
C. Gamma decay.
- _____ 2) Which of the following types of radiation gives off a stream of positive particles?
A. Alpha decay.
B. Beta decay.
C. Gamma decay.
- _____ 3) Which of the following types of radiation is not affected by a magnetic field?
A. Alpha decay.
B. Beta decay.
C. Gamma decay.
- _____ 4) What is the name of the particle made up of 2 protons and 2 neutrons?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.
- _____ 5) What is the name of the particle that travels at the speed of light?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.
- _____ 6) What is the name of the particle that is an electron released from the breakdown of a neutron in the nucleus?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.
- _____ 7) Who discovered radioactivity?
A. Marie Curie.
B. Albert Einstein.
C. Henri Becquerel
- _____ 8) Which of the following is stopped by several centimeters (cm) of lead?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.
- _____ 9) Which of the following is stopped by a sheet of paper?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.
- _____ 10) Which of the following is stopped by a thin layer of metal foil?
A. Alpha particle.
B. Beta particle.
C. Gamma ray.

Matching: Choose the letter of the correct word for each of the questions below. Each letter will be used only once.

A.

B. Decay series

C. Half-life

D. Helium

E. Longer

F. Nuclear fission

G. Nuclear fusion

H. Radioactive

I. Radioactive decay

J. Radioa

K. Transm

_____ 1) An element that gives off nuclear radiation.

_____ 2) An element changes to another, more stable element.

_____ 3) The amount of time for half the atoms in a radioactive sample to decay.

_____ 4) The more stable a nucleus is, the _____ its half-life.

_____ 5) The process in which the nucleus of an unstable atom releases radiation in order to become stable.

_____ 6) The changing of an atom into another, more stable atom during decay.

_____ 7) The splitting of an atom into 2 smaller nuclei (nuclear power plant).

_____ 8) An alpha particle is actually a nucleus of _____.

_____ 9) The name given to the several steps required to get a radioactive element to a stable element.

_____ 10) The joining of 2 atoms to form a single, larger nucleus (stars).