ESS 100 (Stapleton) Quiz Version 5: Rock Dating

Organize the lettered rock samples from oldest to youngest. Then make a mark where the earthquake occurred in the sequence. The **half-life of the radioactive atoms in these samples is 6 million years.** 

Oldest									Newest

1. Sample J contains 10 parent atoms and 53 daughter atoms.

a. What percentage of those atoms are parent atoms? (approximately)16% 26% 36% 46% 56%

b. Which of the following is closest to the age of Sample J?1my 4my 7my 10my 13my 16my

- 2. Sample H contains 23 parent atoms and 14 daughter atoms.
  - a. What percentage of those atoms are parent atoms? 22% 32% 42% 52% 62%
  - Which of the following is closest to the age of Sample H?
     1my 4my 7my 10my 13my 16my
- 3. Sample I contains 20 parent atoms and 43 daughter atoms.
  - a. What percentage of those atoms are parent atoms? 12% 22% 32% 42% 52%
    b. Which of the following is closest to the age of Sample I? 1my 4my 7my 10my 13my 16my
- 4. Sample G contains 50 parent atoms and 174 daughter atoms.a. What percentage of those atoms are parent atoms? 12% 22% 32% 42%
  - Which of the following is closest to the age of Sample G?
     1my 4my 7my 10my 13my 16my
- 5. How many years ago did the Earthquake create the fault in the top diagram? 1-4my 4-10my 10-13my 13-16my Older than 16my
- 6. The diagram on the right shows rock samples from another location on Earth. Choose the most likely age range for layer K, in that diagram.

1-4my 4--10my 10-13my 13-16my Older than 16my





52%

