$\qquad$

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 $\mathbf{6}$ 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?
1 my 4 my 7 my 10 my 13my 16 my
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\%
b. Which of the following is closest to the age of Sample H? 1my 4 my 7 my 10my 13 my 16my
3. Sample I contains 20 parent atoms and 43 daughter atoms.
a. What percentage of those atoms are parent atoms?
$12 \% \quad 22 \% \quad 32 \% \quad 42 \% \quad 52 \%$
b. Which of the following is closest to the age of Sample I?

1 my 4 my 7 my 10my 13 my 16my
4. Sample G contains 50 parent atoms and 174 daughter atoms.
a. What percentage of those atoms are parent atoms? $12 \% \quad 22 \% \quad 32 \% \quad 42 \% \quad 52 \%$
b. Which of the following is closest to the age of Sample G? 1my 4 my 7 my 10 my 13 my 16 my
5. How many years ago did the Earthquake create the fault in the top diagram?
$1-4 \mathrm{my} \quad 4-10 \mathrm{my} \quad 10-13 \mathrm{my} \quad 13-16 \mathrm{my}$ Older than 16 my
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 $\quad 4-$-10my $10-13 m y \quad 13-16 m y \quad$ Older than $16 m y$



