

Telling Relative Time

Use the laws of superposition, inclusions and cross-cutting relationships to determine the relative ages of the following cross-sections. Determine the OLDEST bed FIRST.

1

Youngest B

A

Oldest C

Stratigraphic Principle: Cross cut / inclusion

2

Youngest A

D

C

B

Oldest E

Stratigraphic Principle: Cross cut

3

Youngest A

B

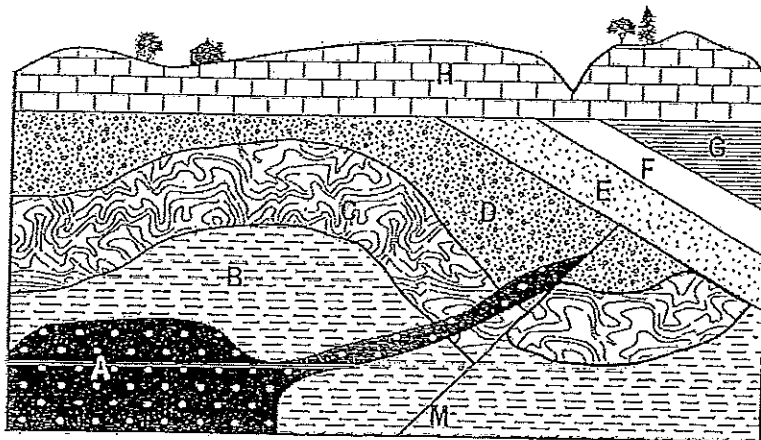
D

E

Oldest C

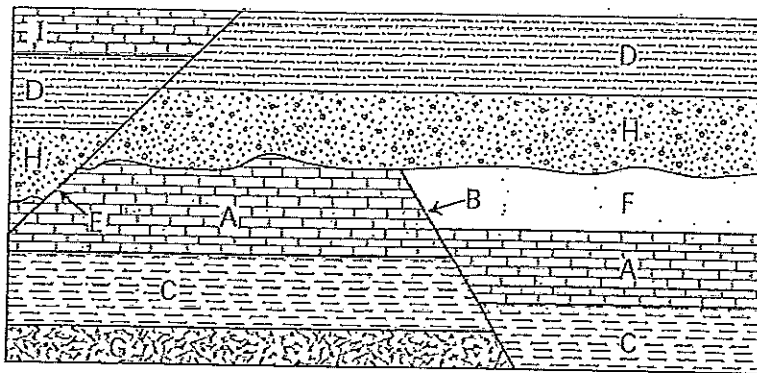
Stratigraphic Principle: Cross cut

4



Youngest H
G
F
E
M - fault
A
D
C
 Oldest B

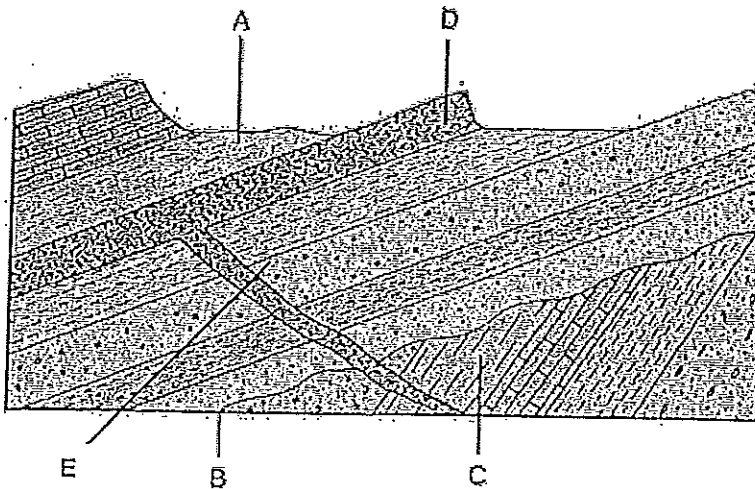
5



Youngest E - fault
I
D
H
B - fault
F
A
C
 Oldest G

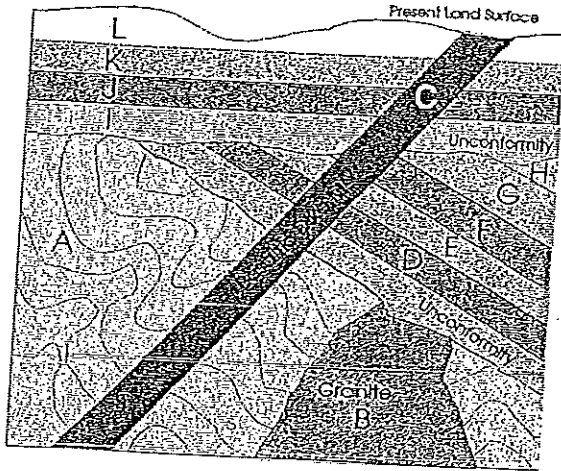
Outline the sequence of events in the cross sections below by numbering each rock unit or event in the order in which it occurred or was deposited.

6



Youngest A
D
E
B
 Oldest C

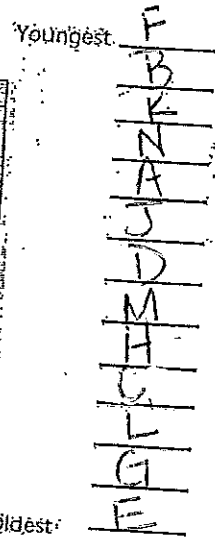
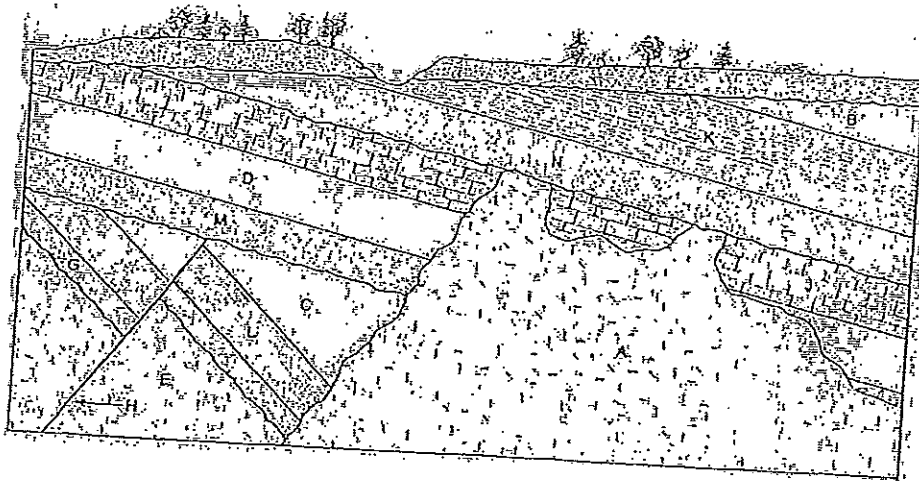
7



Refer to the cross-section on the left. For each of the following pairs of rock layers, identify the relative dating law that would be used to determine which bed was older and which was younger. Circle the letter of the OLDER bed.

- (A & B) Inclusion
- (D & E) Superposition
- (C & D) Cross cut
- (J & K) Superposition

8



Refer to the cross-section above. for each of the following pairs of rock layers identify the relative dating law that you used to determine which bed was older and which was younger. Circle the letter of the YOUNGER bed.

- M & (A) Cross cut
- J & (N) Superposition
- (H) & C Crosscut
- (D) & M Superposition