

Geology 101, Fall 2004

Assignment 4: Dating methods and structural geology
Define/distinguish the following terms:

geochronology

relative dating

numerical (absolute) dating

original horizontality

lateral continuity

superposition

cross-cutting relationships

inclusions

faunal succession

uniformitarianism

catastrophism

index fossils

unconformities

correlation

formation

bed

(geologic) period

isotope

isotopic decay

radioactivity

half-life

exponential decay curve

dendrochronology

lichenometry

fission-track dating

thermoluminescence

varve

cosmogenic isotope dating

structural geology

stress (compression, tension, shearing)

strain

elastic deformation

plastic deformation

brittle failure

attitude (strike and dip)

fold (anticline and syncline)

fault (reverse, normal and strike-slip)

structural domes and basins

thrust faults

horsts and grabens

orogeny (fold-and-thrust, fault-block)

penplain

Place the geological **eons** of Earth in chronological order from oldest to youngest.

Place the geological **eras** of the Phanerozoic Eon in chronological order from oldest to youngest.

Place the geological **periods** of the Paleozoic Era in chronological order from oldest to youngest.

Place the geological **periods** of the Mesozoic Era in chronological order from oldest to youngest.

Place the geological **periods** of the Cenozoic Era in chronological order from oldest to youngest.

Place the geological **epochs** of the Tertiary Period in chronological order from oldest to youngest.

Draw the symbol used on a typical geologic map for a **reverse** fault.

Draw the symbol used on a typical geologic map for a **normal** fault.

How are you supposed to tell the two apart?