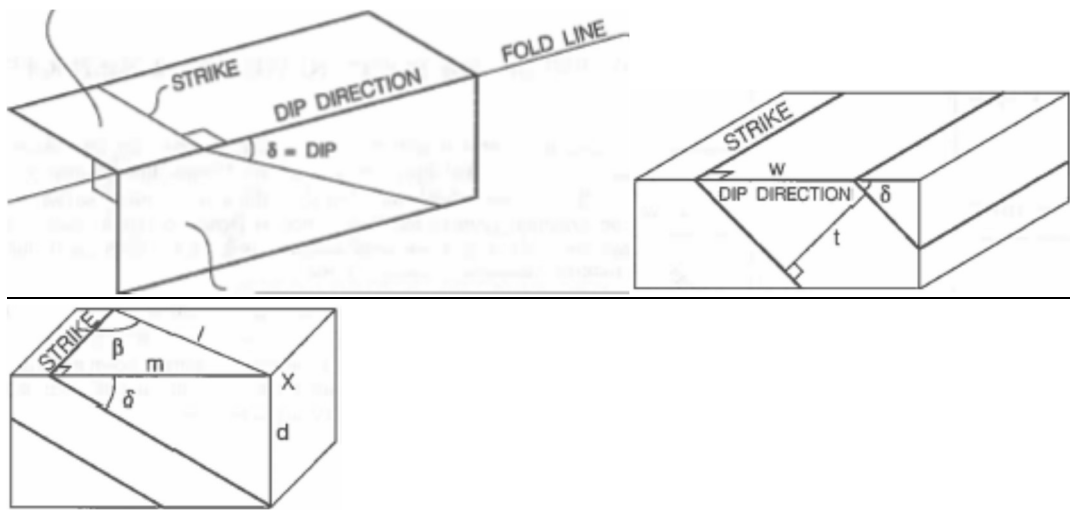


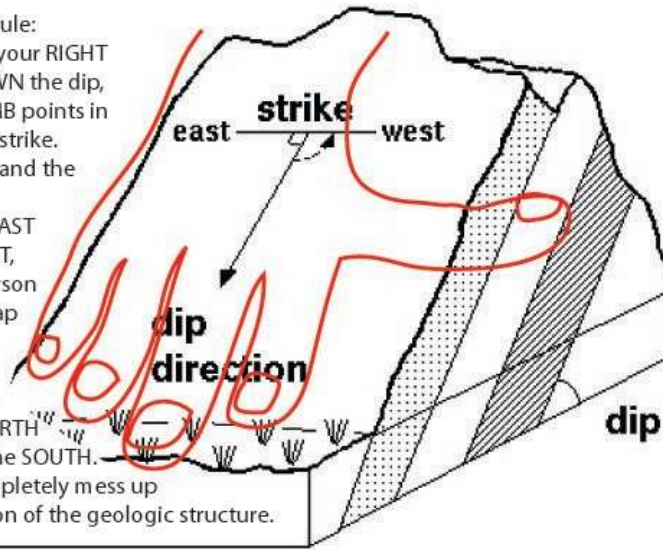
## STRUCTURAL GEOLOGY

- **Apparent dip ( $\alpha$ )**- inclination of a plane measured in a direction NOT perpendicular to strike
- $\beta$ - angle between strike and apparent dip
- **Dip ( $\delta$ )**- Inclination of the line of greatest slope of an inclined plane of interest
- **Directed line**- A line described by its bearing and plunge
- **Fold line**- A hinge line between a vertical cross section and map view
- **Outcrop width ( $w$ )**- width of an outcrop, measured in map view, perpendicular to strike
- **Accuracy**- how close a measurement conforms with a standard
- **Precision**- degree of consistency of repeated measurements
- **Plunge**- vertical angle between a line and horizontal
- **Rake (Pitch)**- angle measured in a specified plane, between a line and horizontal
- **Slope angle ( $\sigma$ )**- Angle from horizontal to down slope
- **Stereonet**- representation of angular relationships between planes and lines. Also called a Wulff net (an equal angle stereographic projection)
- **Strike**- Bearing of a horizontal line in an inclined plane
- **Thickness ( $t$ )**- Perpendicular distance between the top and bottom of a geologic unit.
- **Trend**- bearing of a vertical plane containing a line.



**Use the 'right hand rule to determine the strike direction:**

The right hand rule:  
If the fingers of your RIGHT hand point DOWN the dip, then your THUMB points in the direction of strike.  
Ignore this rule, and the strike could be interpreted as EAST rather than WEST, and another person reading your map could think the strata dip the other direction: down to the NORTH rather than to the SOUTH. That would completely mess up the interpretation of the geologic structure.



Use Trigonometry technique SohCahToa to determine dip and thickness.

**Always view the cross section looking north. Thickness (t), outcrop width on the ground surface measured perpendicular to strike (w), and dip angle (o) will appear on all drawings.**