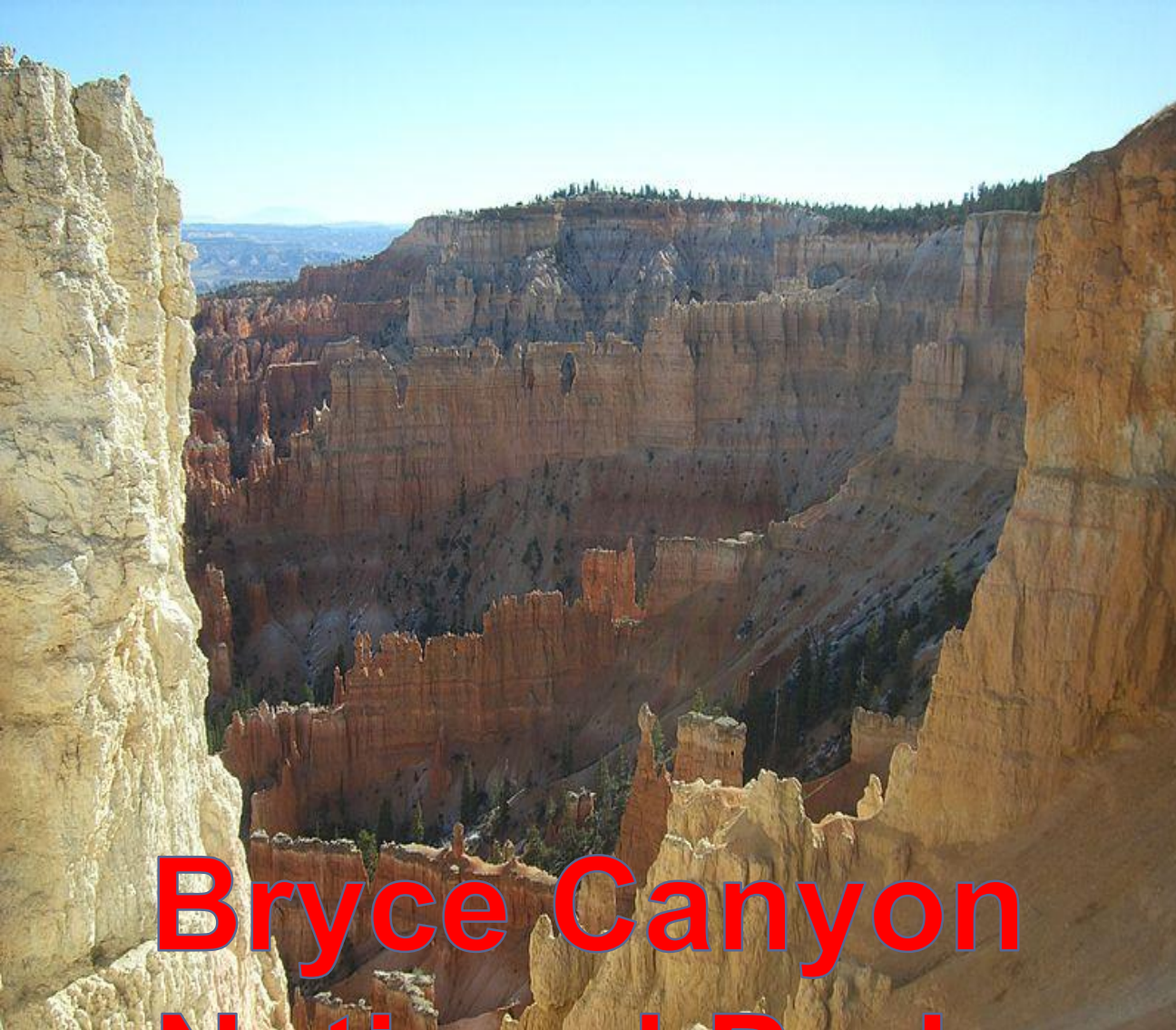


Topographic Maps





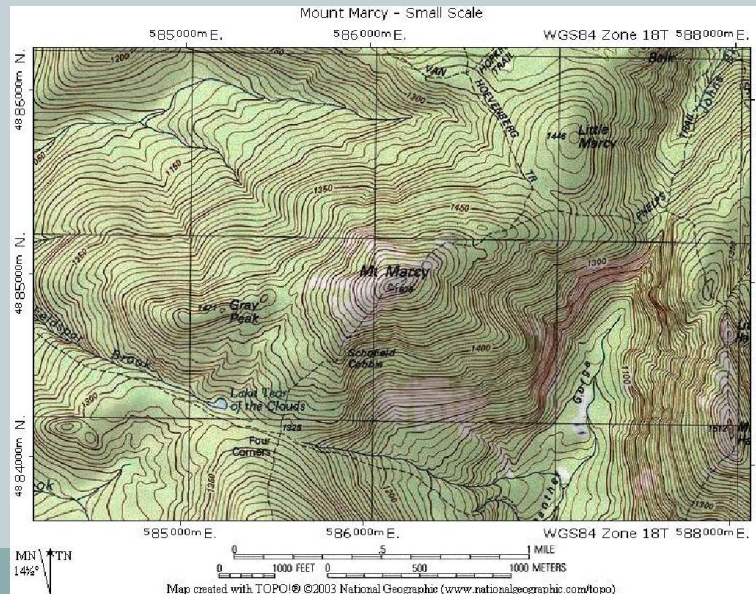
Bryce Canyon National Park, Utah



Topographic Maps



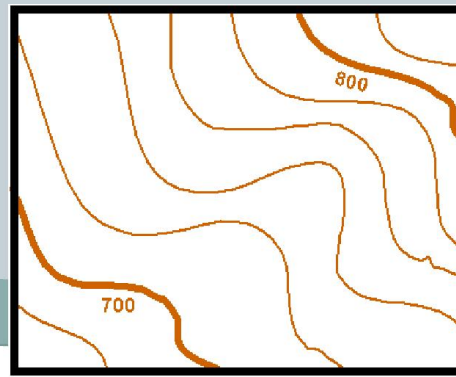
- Show the surface features and elevation of the Earth.
- Examples of features: hills, rivers, valleys...



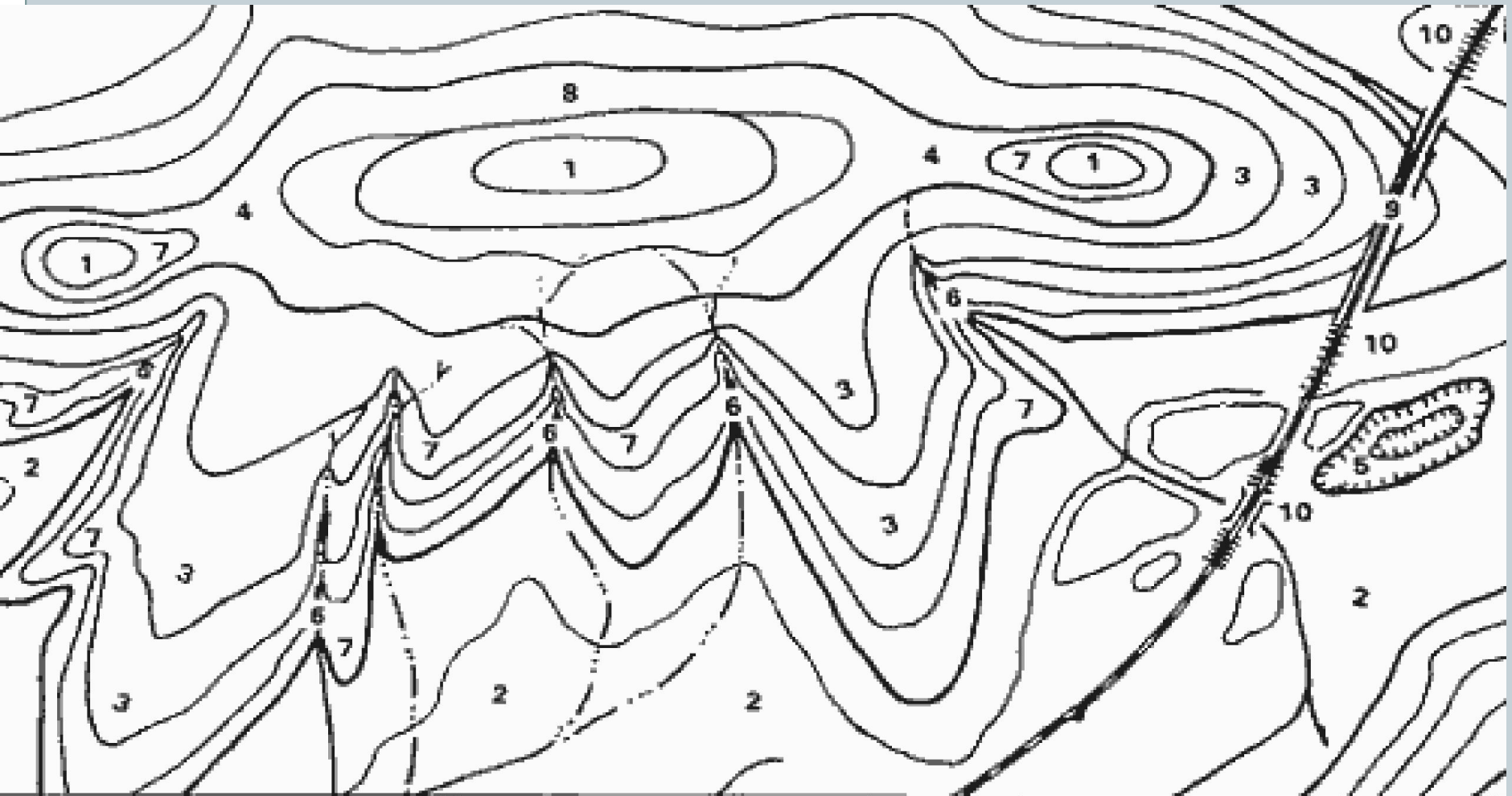
Contour Lines



- Lines that connect all the points of the same elevation.
- Lines never cross
- The closer the lines, the steeper the land
- “V” lines indicate a valley
- “V” lines always point upstream (rivers flow from high to low elevation)
- Closed circles indicates hills or mountains.



Picture



1. HILL

3. RIDGE

5. DEPRESSION

7. SPUR

9. CUT

2. VALLEY

4. SADDLE

6. DRAW

8. CLIFF

10. FILL

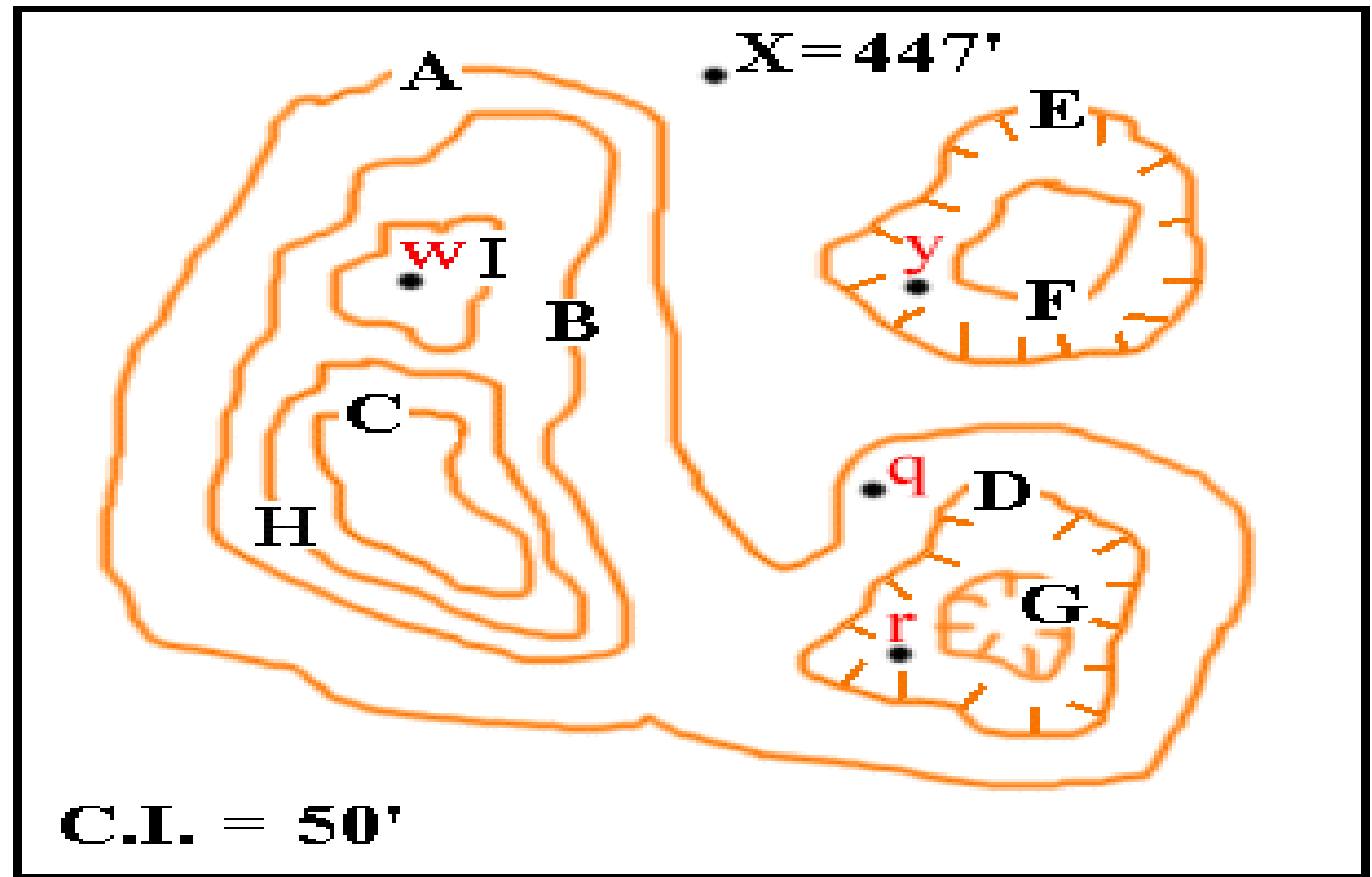
Depression Contours



- Lines that show a decrease in elevation
- Lines are dashed



Picture

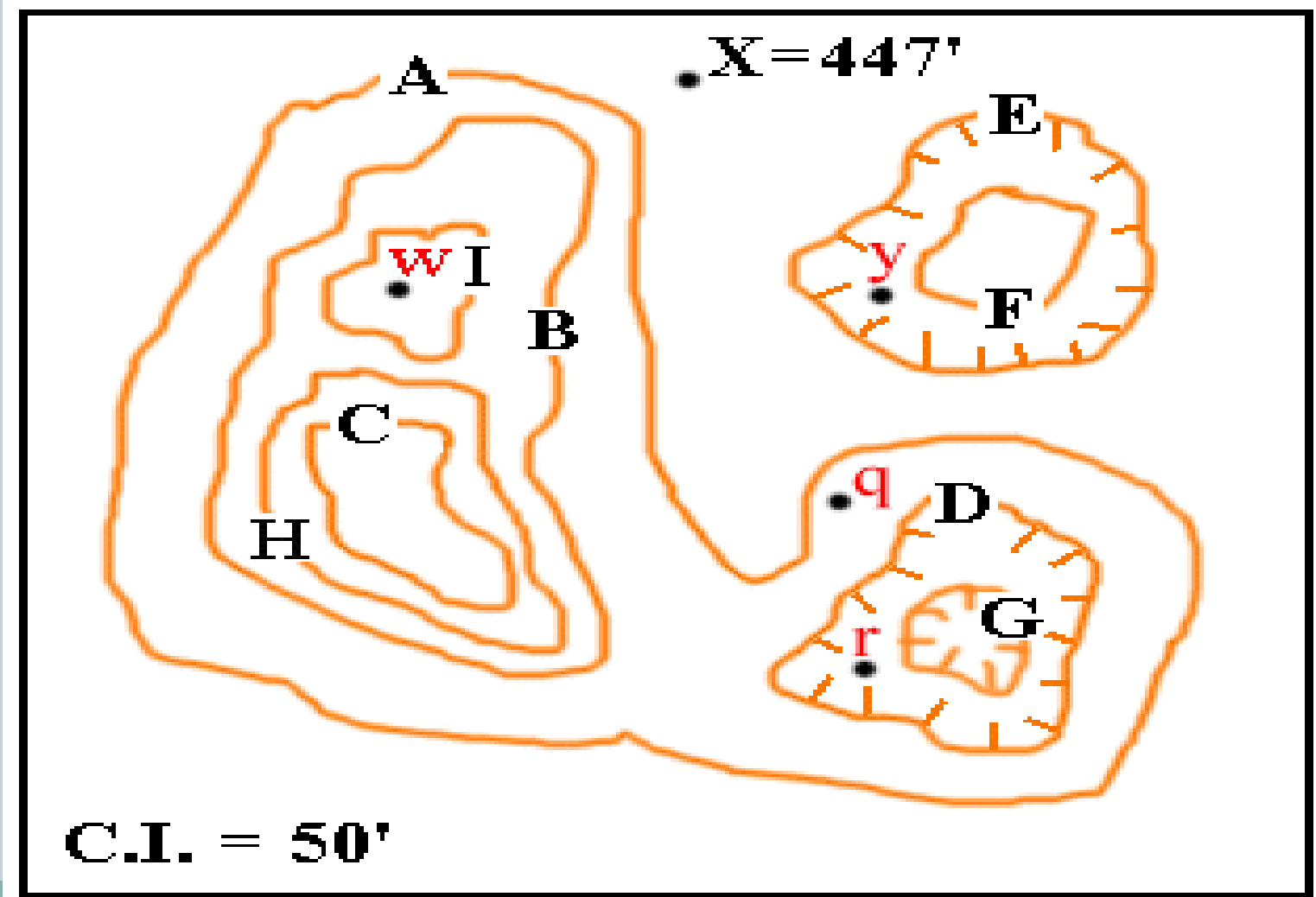


Contour interval



- The difference between one contour line and the next.

Picture

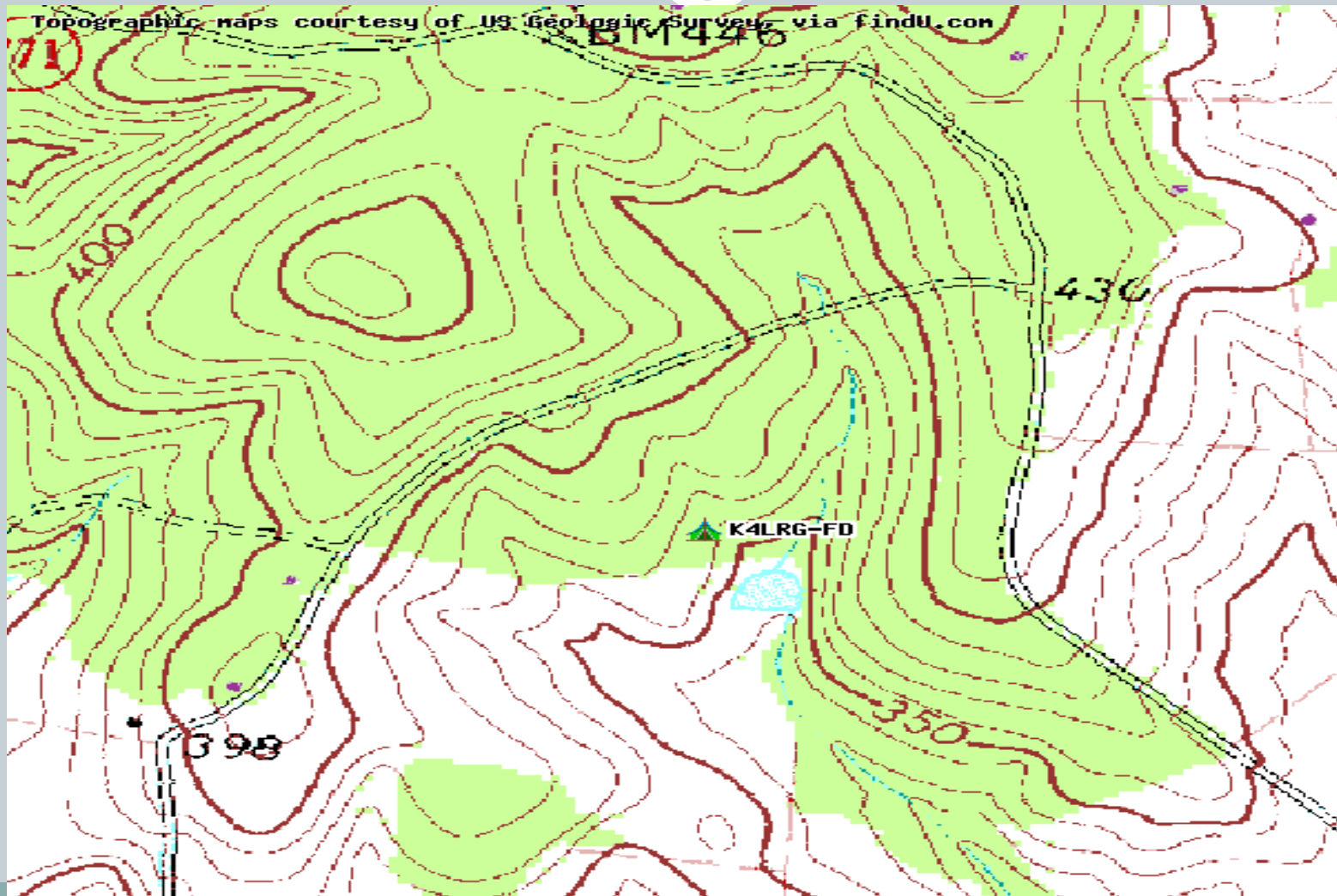


Contour index



- Every 5th contour line is in BOLD and labeled with the elevation number
- Difference between 2 contour index lines divided by 5 = contour interval

Picture



Relief



- Difference between the highest and lowest point
- Example:
 $150 \text{ ft. (highest)} - 50 \text{ feet (lowest)} = 100 \text{ feet (relief)}$

True or False



- Depression contours are dashed and show a decrease in elevation.
- Relief is the highest point on a topographic map.
- Topographic maps show the surface features and elevation of the Earth.

Mountain Building





- Mountains are classified by the forces that create them.
 - 5 different types of mountains
- Mountains erode slowly through action of rivers, weather conditions, and glaciers
- High elevations on mountains are colder than at sea level, which affect the ecosystem of mountains with different elevation
 - Highest Mountain: Mount Everest (Himalayas)
 - ✦ Summit is ~29,000 ft above sea level

Folded Mountains



- Formed where continents have collided.
- Tectonic movements have squeezed rock layers together.
- Shows evidence of folding and faulting.

- Ex. Alps, Himalayas, Appalachians, Ural Mtns. (in Russia), Rocky Mtns.

Folded Mountains



Fault Block Mountains



- Formed by faults where part of the earth's crust have been broken into large blocks.
- These blocks were then lifted above the surrounding crust.
- Faulting tilted the blocks.
- Ex. Sierra Nevada, Tetons, Basin and Range province of Nevada, Utah, New Mexico, Arizona, California, Rocky Mtns.

Tetons



Dome Mountains



- Formed when molten rock rises through the crust and pushes up the rock layers above it.
- Resulting in a circular dome on the earth's surface.
- Ex. Black Hills of S. Dakota, Adirondak Mtns. Of NY

Stone Mountain, NC



Eroded Mountains



- Formed when plateaus that have been pushed up above sea level erode;
- Leaves mountains standing between valleys.
- Ex. Catskills and Pike's Peak

Pikes Peak



Volcanic Mountains



- Formed when molten rock erupts onto the earth's surface.
- Can form on a divergent boundary (mid-ocean ridge), a convergent boundary, or on a hot spot.
- May develop on land or on the ocean floor.
- Ex. Andes, Mid-Atlantic Ridge, Cascade Range, Azores, West Indies, Hawaii.

Mount Rainier

