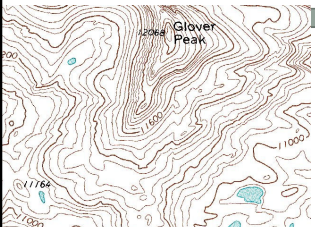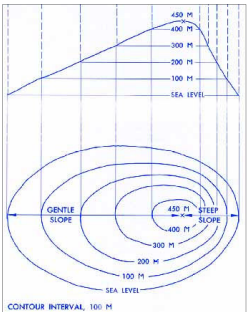**TOPOGRAPHICAL MAPS**

WEDNESDAY 11/5

Topographic Map

- Show the shape of the Earth's Surface
- Contour lines drawn on a map give the elevations for a region
- Where the lines are…
*close, the slope of the ground is steep

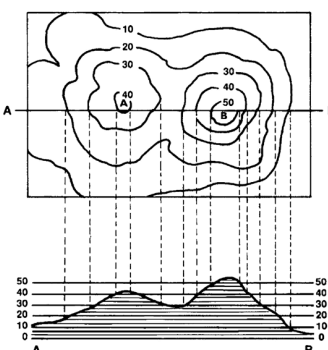*far apart, the slope is gentle

Topography of your Hand

Topographical Map Example

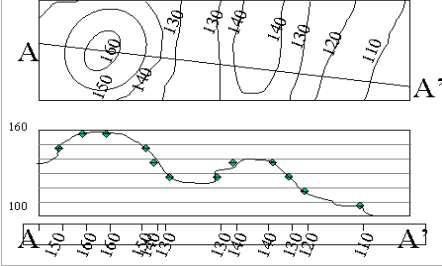On this map, the vertical distance between each of the contour lines is 10 feet.

1. Which hill is higher, hill A or hill B? **B**
2. Which hill is steeper, hill A or hill B? **B**
3. How many feet of elevation are there between contour lines? **10 feet**
4. How high is hill A? Hill B? **A is about 42 ft   B is about 54 ft**
5. Are the contour lines closer on hill A or hill B? **B**
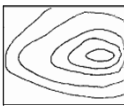
Topographic Profile

- A cross sectional view that shows the elevation of the land

Make the Match!

Which topographical map matches the picture?

1

Determining Gradient and Slope

- The rate of change in field values between two points in a field
- The average slope, or gradient, between any two points (A and B) on a mountain can be determined from a topographical map

$$\text{Gradient} = \frac{\text{Difference in elevation between A and B}}{\text{Distance between A and B}}$$

Determining Gradient
Sample Problem

- Calculate the average slope of a mountain trail from the 980-meter contour line to the 480-meter contour.
- The distance between these two elevations measures 4 kilometers.

$$\text{Gradient} = \frac{\text{Difference in elevation (m)}}{\text{Distance between the points (km)}}$$

$$= \frac{980\ m - 480\ m}{4\ km}$$

$$= \frac{500\ m}{4\ km}$$

Design Your Own Topographical Map

- In your notebook sketch out your own topographical map by drawing contour lines (include elevation numbers!)

- Make use of the topographical symbols on the inside front cover of the textbook. Also, feel free to design your own symbols.

- Include a title for your map and a legend explaining your symbols.

- As you design your map think about where it would be appropriate for a road, a creek, a hill, *etc.* to be located

- Helpful Textbook Pages: 33-36

Topographic Map Symbols

A better list is available on the inside front cover of your textbook

Stream - intermittent	
Marsh, muskeg	
Swamp	
Well, water or brine; Spring	
Rocks in water or small islands	

Helpful Textbook Pages: 33 -36

Today's Main Idea

Elevation and steepness of landforms on a topographical map are represented by contour lines.

Explore Question

2. Explore today's main idea with this question:
How do index contours help in making accurate topographical maps?

Vocabulary

None!