Parts of a Topographic Map

Topographic maps must show landforms on the earth's surface.
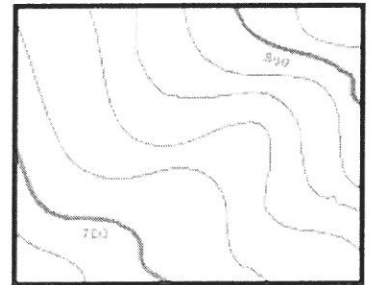
A. **Contour lines** on topography maps connect points of <u>equal</u> elevation.

> A series of concentric circles general means a hill or mountain at a location

B. **Contour interval** is the change in elevation from one contour line to the adjacent one.

C. **Contour index lines help determine the interval**

> Map A _____ Map B _____

Map A

Bench Mark – _____

Contour lines **farther apart** indicate a **gentle** slope

Contour lines **close together** indicate a **steep** slope

D. **Depression contours** have small hash marks pointing downhill called **Hachured lines**.

E. **Rule of V** – Contour lines of rivers always point
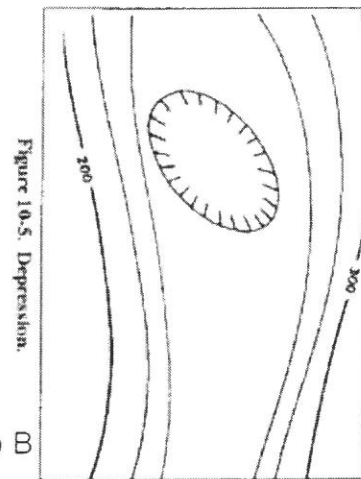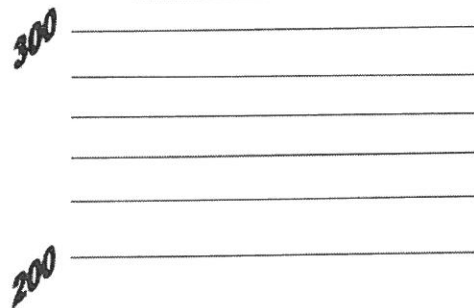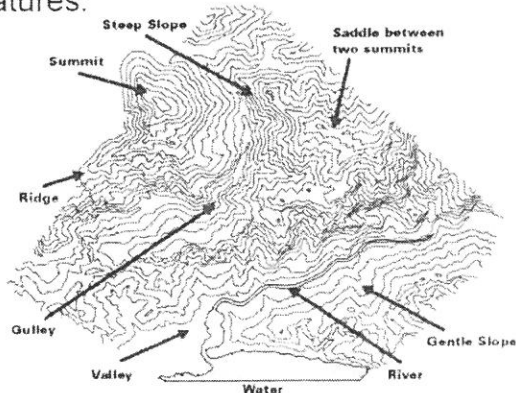
_____

F. **Gradient**: = _____

Other Features:

Figure 10.5. Depression.

Map B

300 _____
_____
_____
_____
_____
_____
200 _____

Topographic Map (with contour lines that show points that are on the same level)

The two hills seen from the side, with elevations marked and dotted lines pointing to the corresponding contour lines.
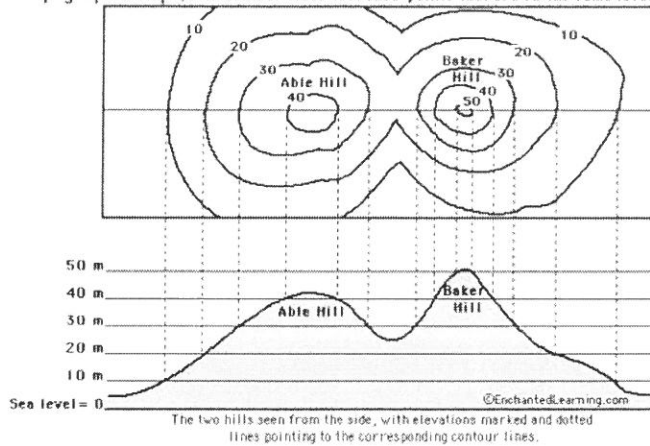
1. Color the elevations on the topographic map as follows. Red: 50m and higher, Orange: 40-50m, Yellow: 30-40m, Light green: 20-30m, Dark green: 10-20m, Purple: 0-10m.

2. Approximately how tall is Able Hill?

3. Approximately how tall is Baker Hill?

4. Which mountain is taller, and by about how much?

5. How many meters of elevation are there between contour lines on the topographic map?

6. Which mountain has steeper slopes?

7. Are the contour lines closer together on Able Hill or Baker Hill?

Topographic Map (with contour lines that show points that are on the same level)
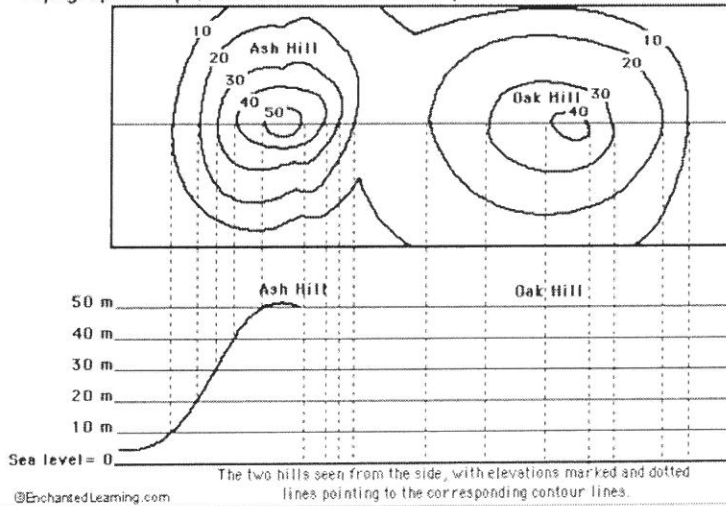
The two hills seen from the side, with elevations marked and dotted lines pointing to the corresponding contour lines.

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1. Color the elevations on the topographic map as follows. Red: 50m and higher, Orange: 40-50m, Yellow: 30-40m, Light green: 20-30m, Dark green: 10-20m, Purple: 0-10m.

2. Finish the mountain diagram below the topographic map, completing Oak Hill and drawing Ash Hill with proper elevations.

3. Approximately how tall is Ash Hill?

4. Approximately how tall is Oak Hill?

5. Which mountain is taller?

6. How many meters of elevation are there between contour lines on the topographic map?

7. Are the contour lines closer together on Ash Hill or Oak Hill?

8. Which mountain has steeper slopes?

6121
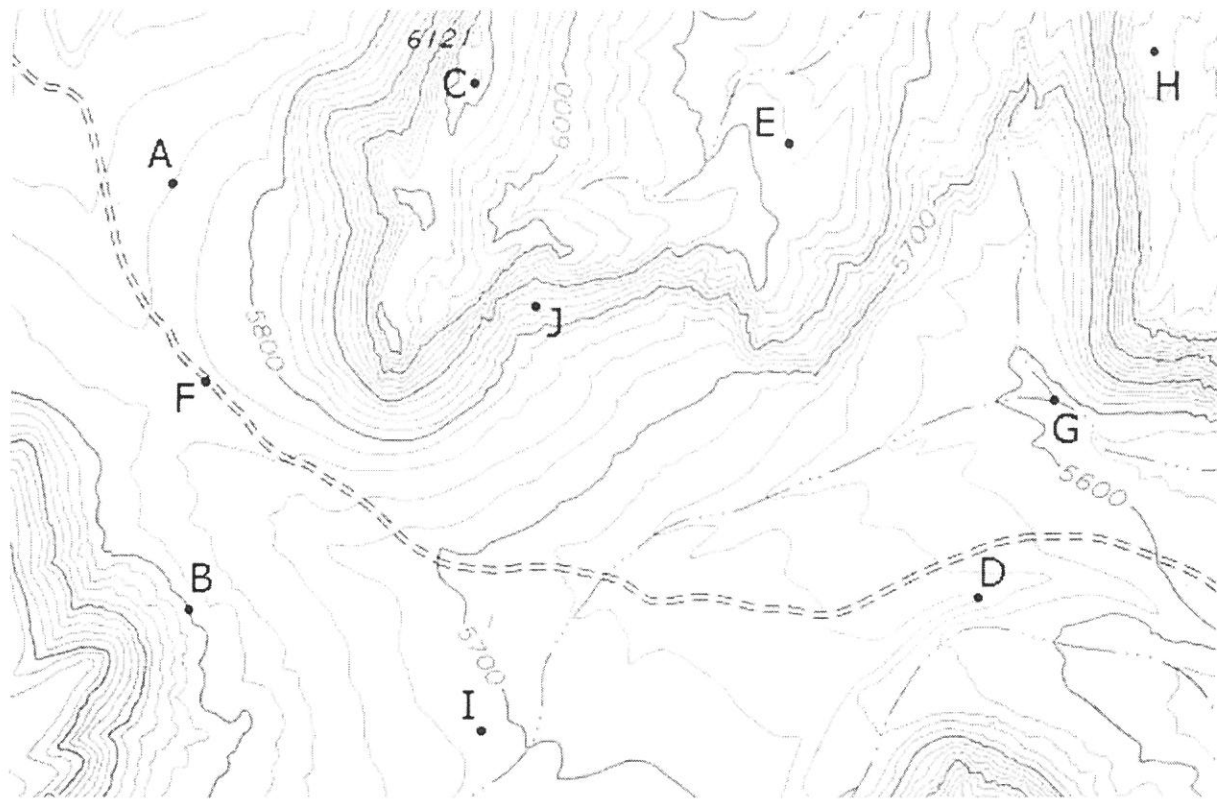
1 Km

What is the contour interval of the map above? _____

Mark on you map an area that is **steep** and one area that is **gentle** sloping.

What is the gradient from C – E? _____

Pick two other pairs of letters for your partiner and have them determine each gradient. Make one easy and one challenging. (Some letters are not on contour lines, so you will have to estimate the elevation change.) Remember Rise over Run.

(Easy)   Letter ___ - ___ =
(Challenging) Letter ___ - ___ =

Can you identify a Sumitt, Saddle, Valley, and a Ridge?

Profiling: (lets make this a challenge)

Choose one of the following sets of numbers and create a profile map. You and your partiner must choose different sets.

(Mr Linton will take the easy way out and do B-D as a sample)

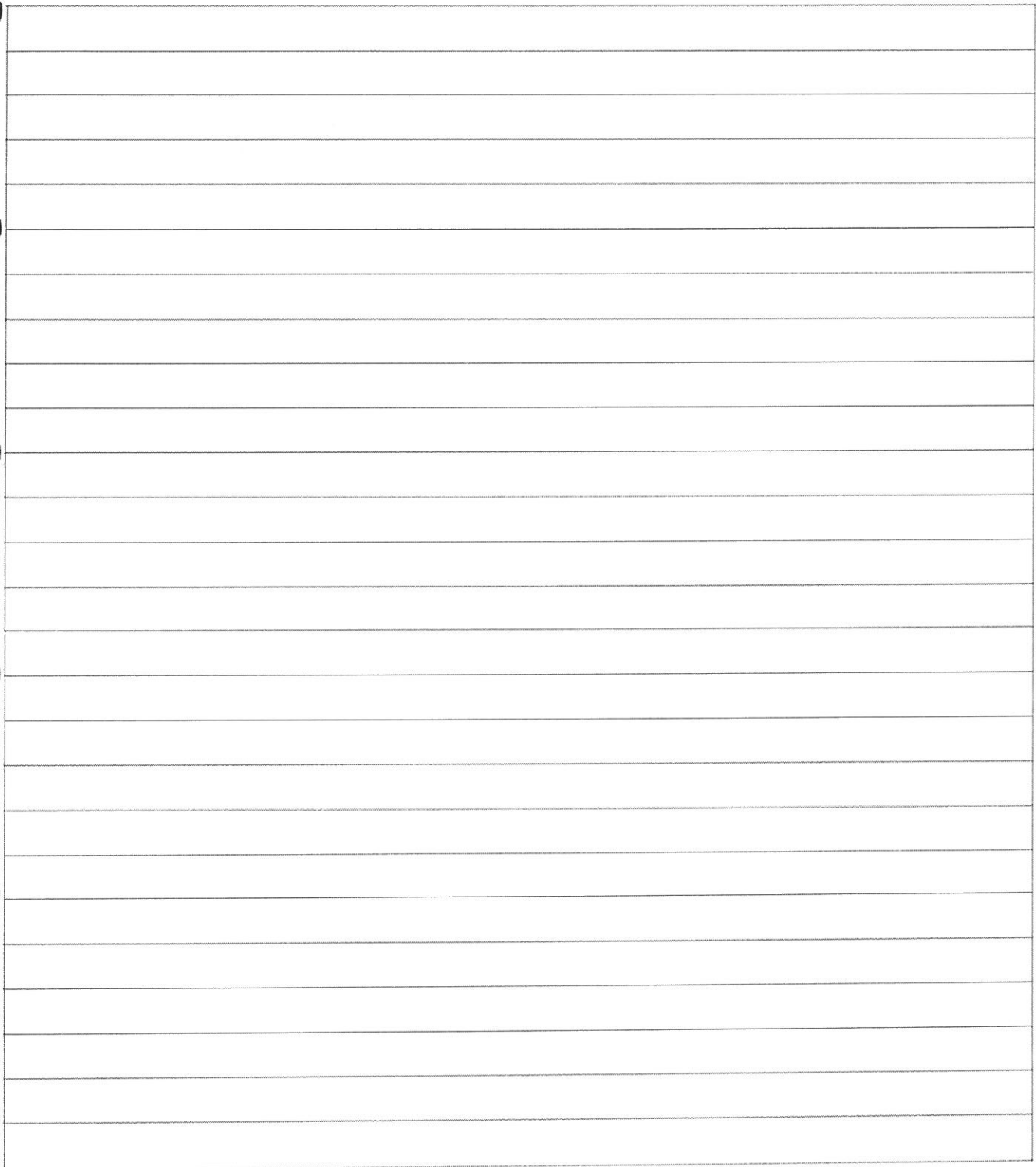A-G   F-H   B-H   A-D
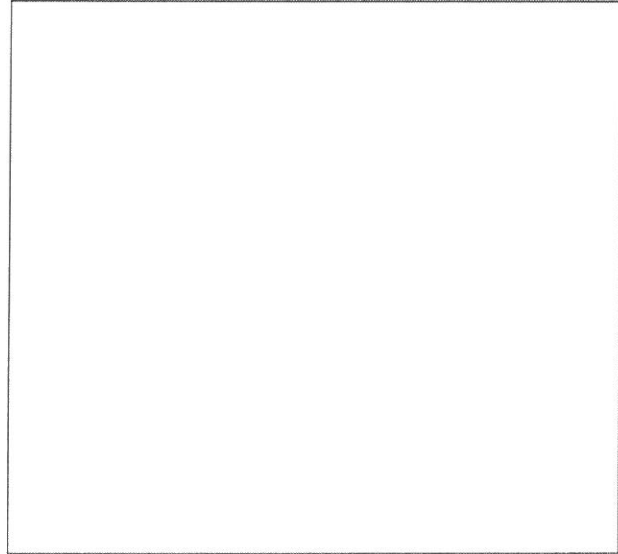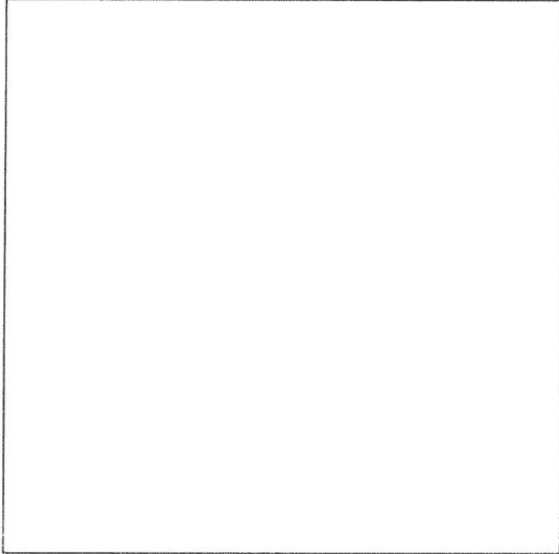
6100

6000

5900

5800

5700

5600

Fun With Clay Topography:

Draw a topography maps and see if your partiner can mimic it using the clay. It does not need to be perfect but get it as close as possible.

Sample:

Mold two landscapes using the clay and see if your partiner can draw a topography map of it. It must include at least the following features: steep side, gentle side, depression, and river.   It does not need to be perfect.
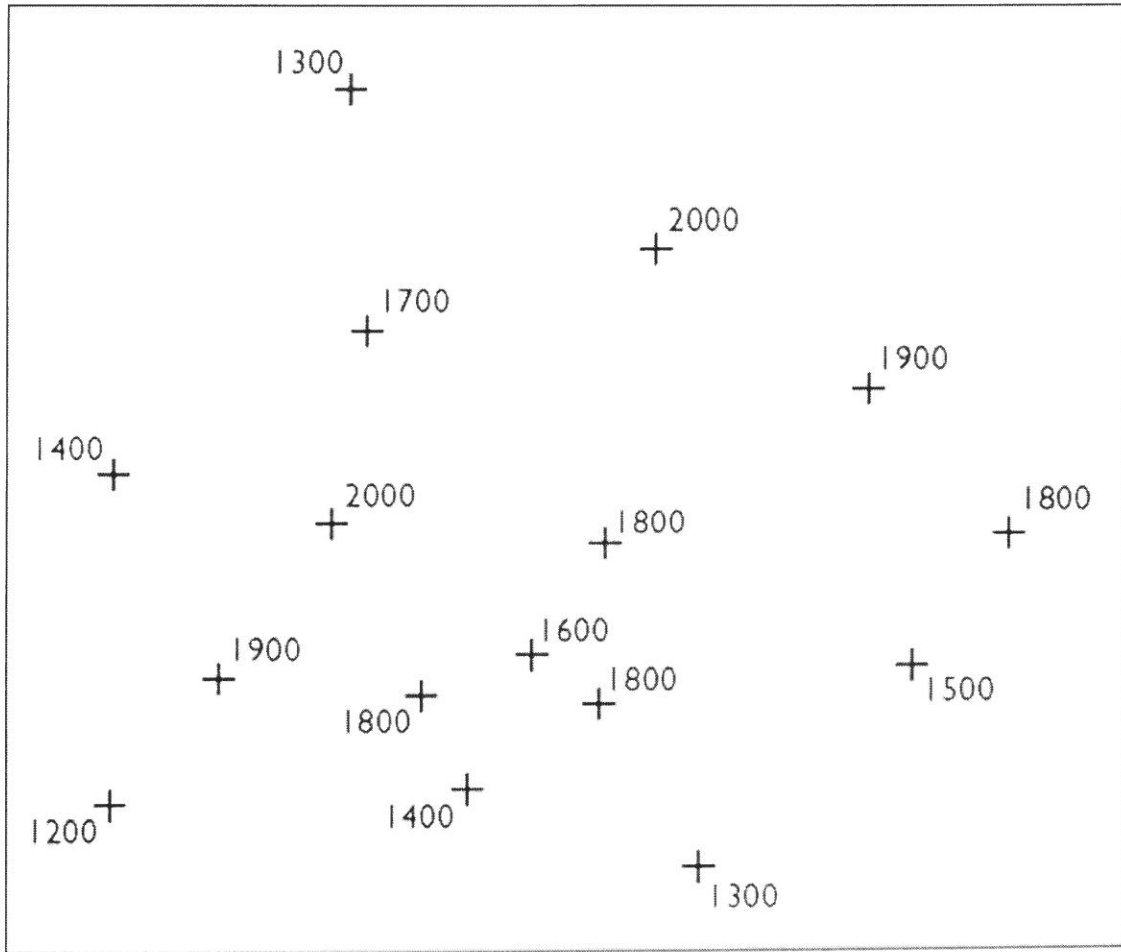
Sample:
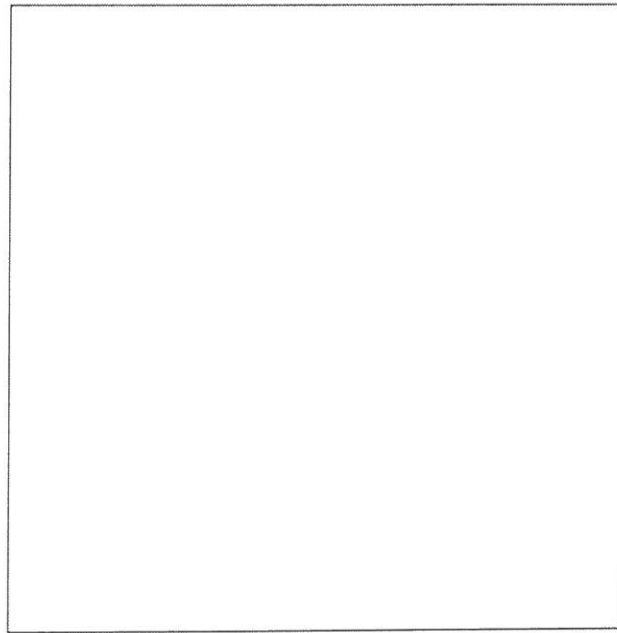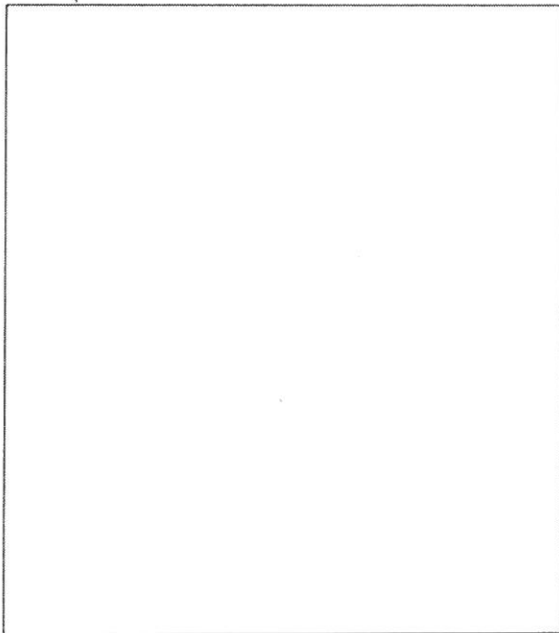
1) **Topography**: Match the following profiles:

1 = _____   2 = _____

3 = _____   4 = _____

5 = _____   6 = _____

Contouring: Practice

Contour Interval =100

Isotherms: Lines of equal _____

Indicate the Isotherms for the following temperatures: 10, 20, 30, 40, 50, 60

18Z 09 JAN 2001   Temperatures

Isobars: (Lines of equal _____)
Finish the isobars indicate an L for **Low pressure** at the lowest point.

Sea level Pressure (mb)   Analysis for 12Z 10 NOV 98