

MOUNTAIN PEAKS

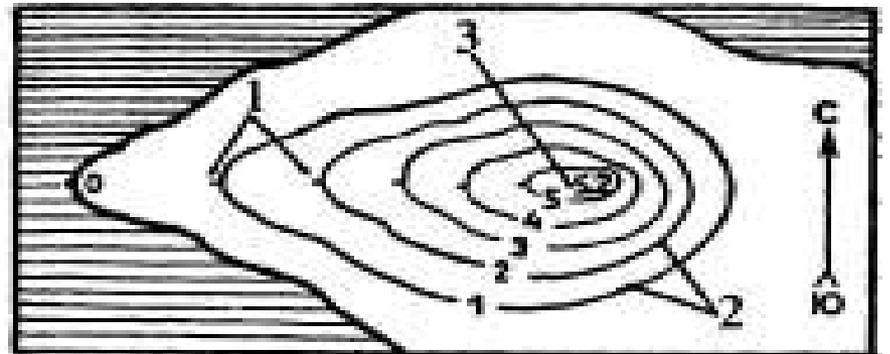
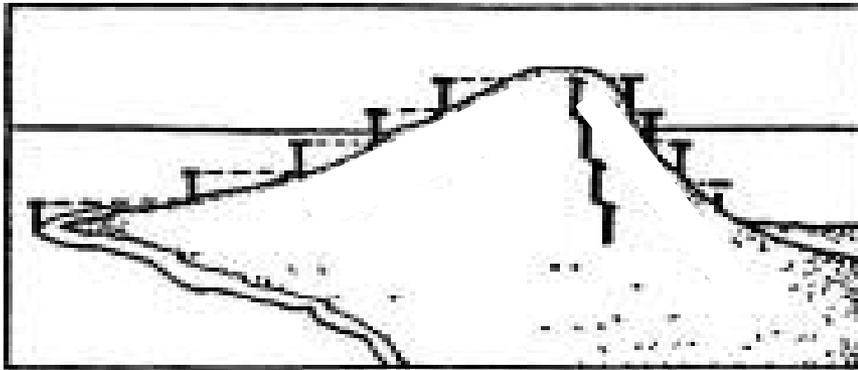
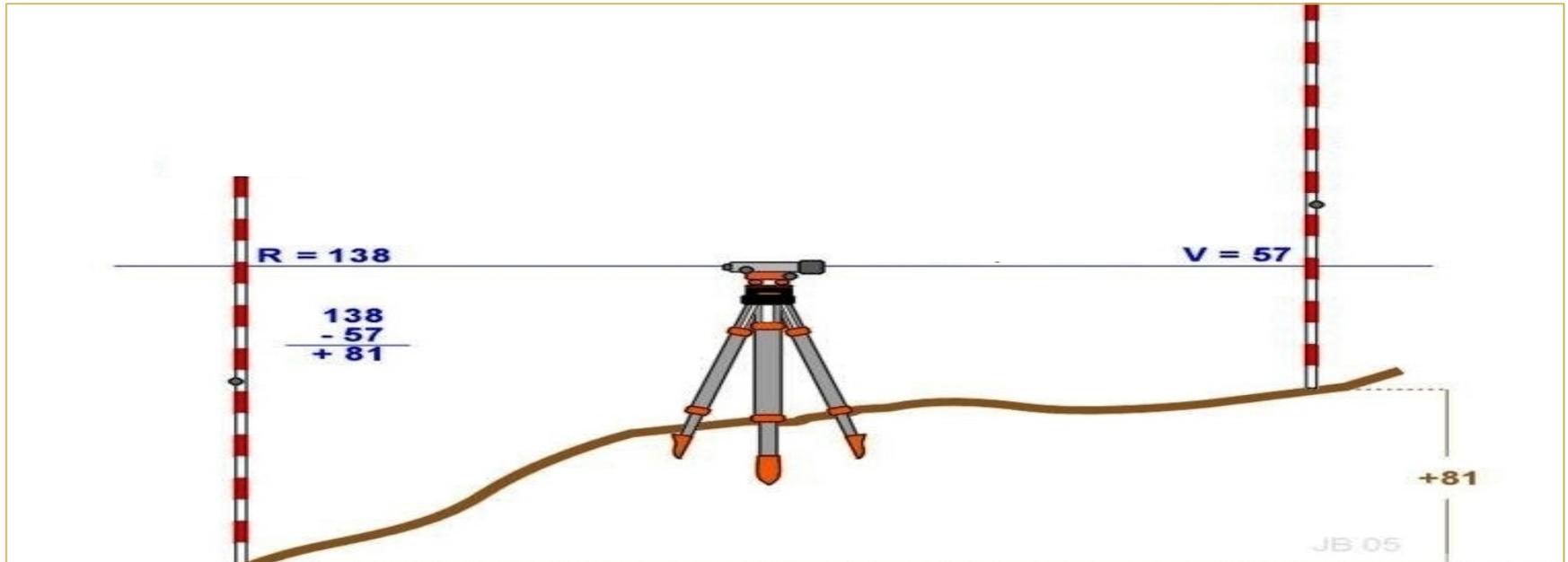
Task

What methods are used to determine the elevation of the World's highest mountains? Suggest your own experimental method and determine the height of a mountain or a hill of your choice.

Goals and objectives

- ❑ 1) List the different ways to determine the height of the mountain peaks
- ❑ 2) Learn how the height of peaks changes in time
- ❑ 3) Suggest method of measuring height of mountains
- ❑ 4) Measure the height of a mountain or a substitute

Leveling instrument



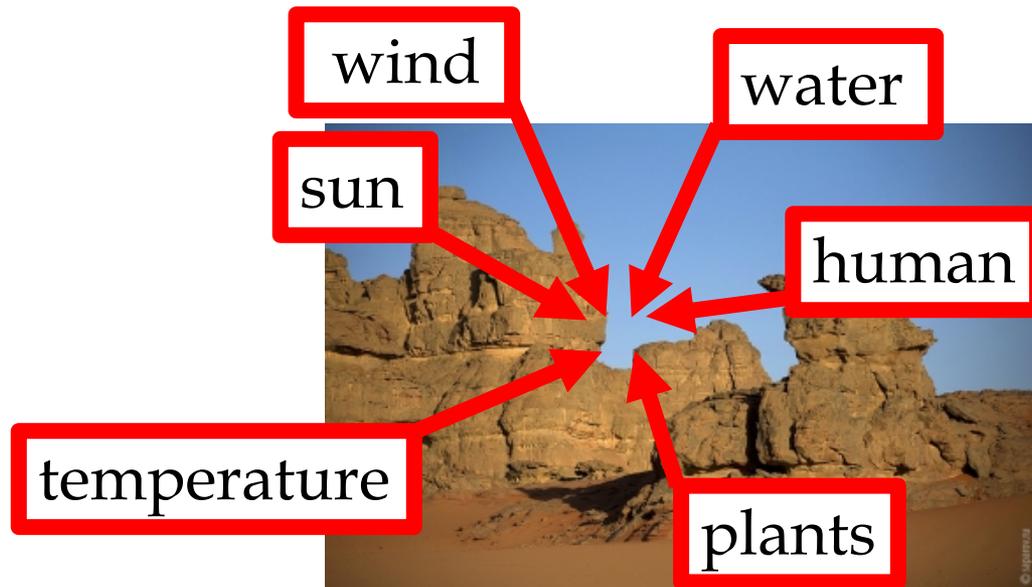
Barometer



**Is the height of the mountains
change in time?**

YES!

- 1) Tectonic processes
- 2) Erosion
- 3) Human intervention



Measuring the height of the mountains with the pole

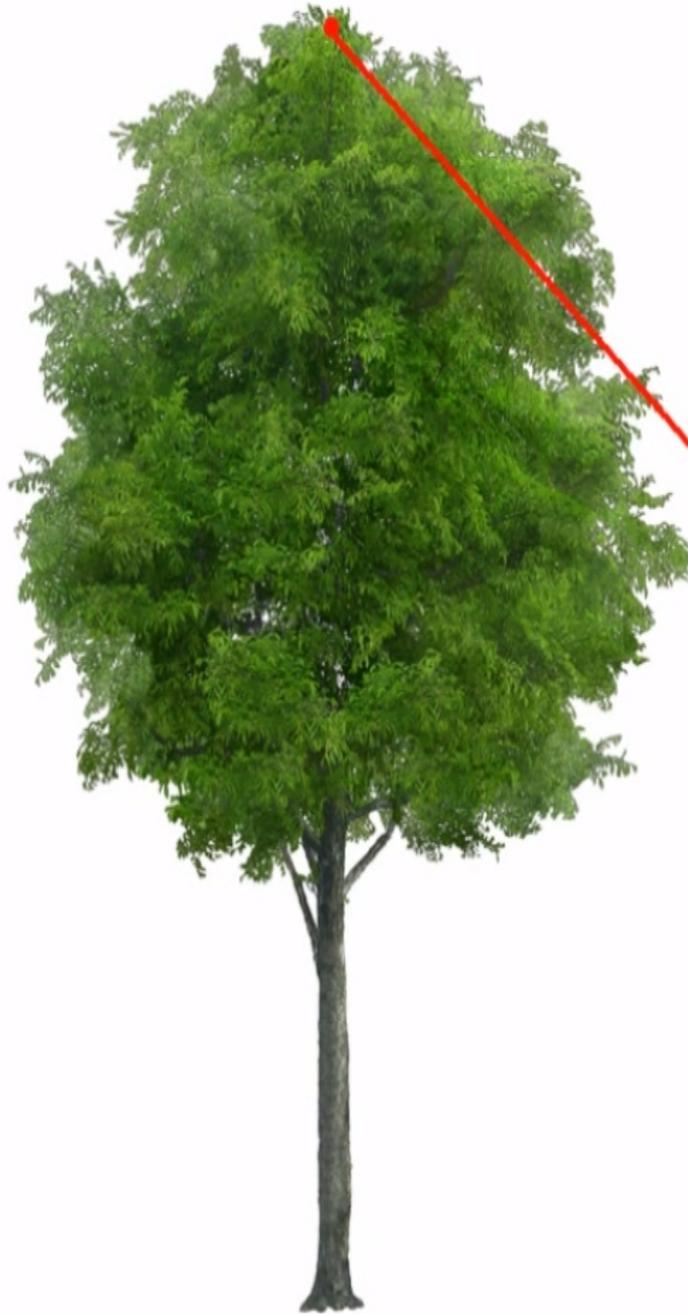
Equipment:

1. Pole size with your growth
2. Tape-measure
3. Map



1. Determine the point
at eye level

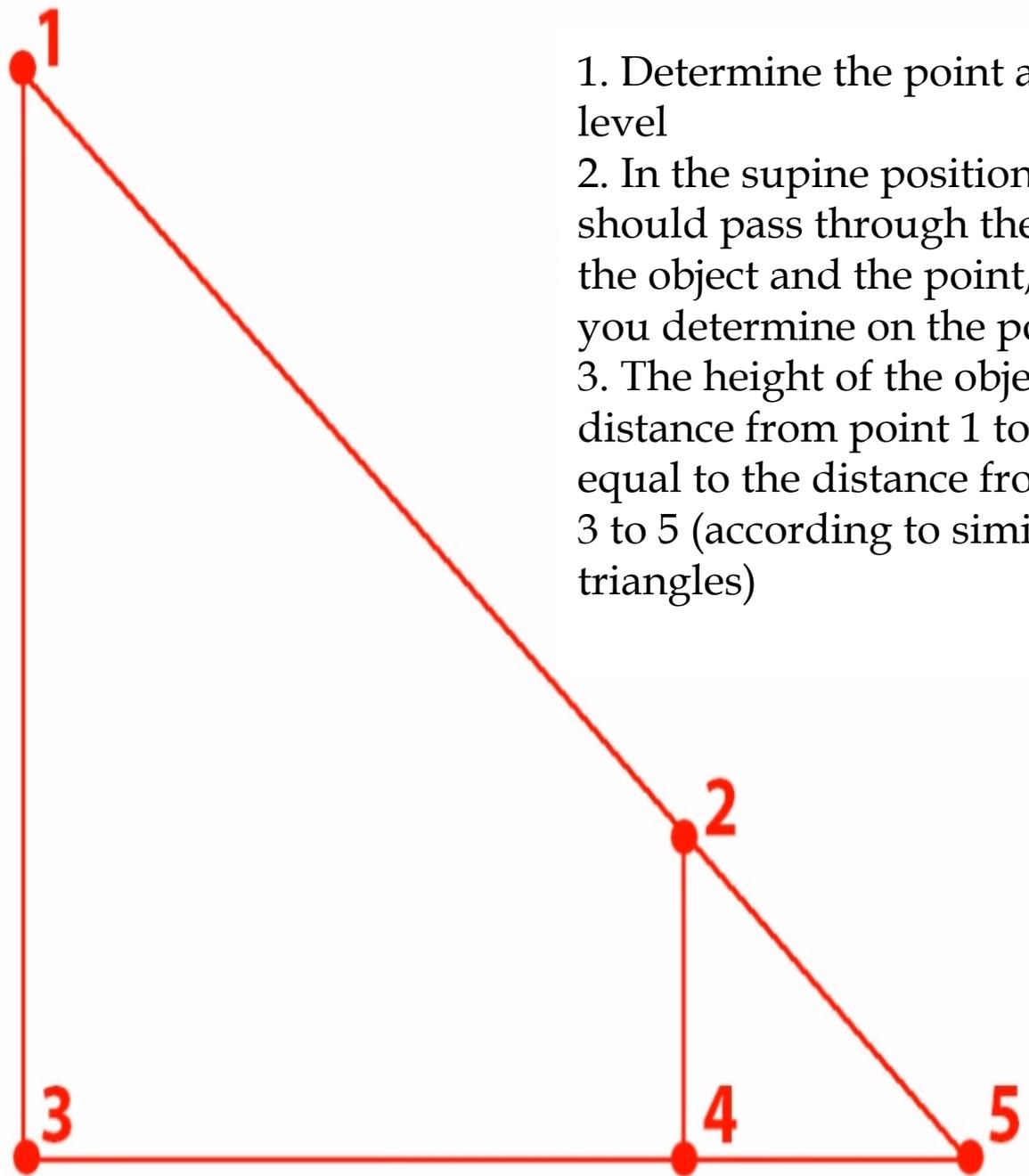




1. Determine the point at eye level

2. In the supine position look should pass through the top of the object and the point, which you determine on the pole



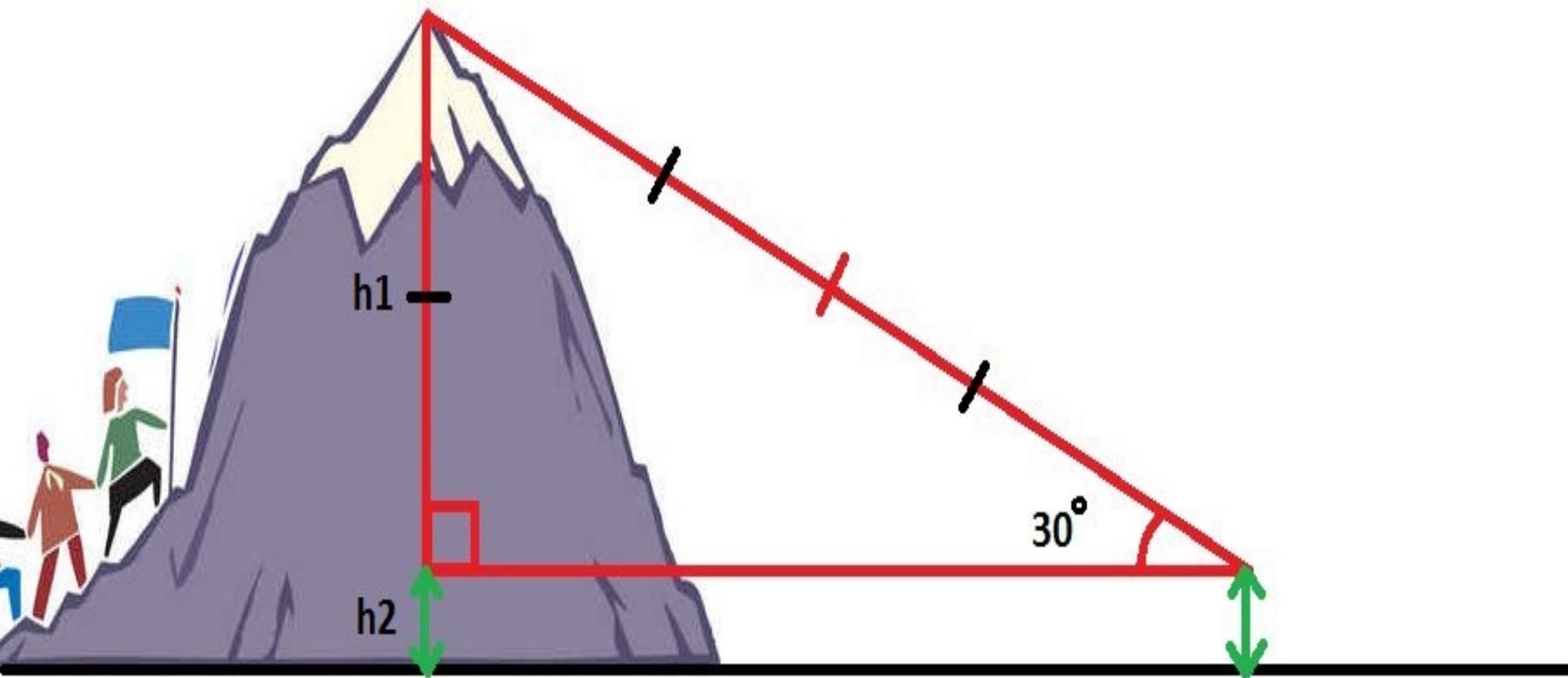


1. Determine the point at eye level
2. In the supine position look should pass through the top of the object and the point, which you determine on the pole
3. The height of the object (the distance from point 1 to 3) is equal to the distance from point 3 to 5 (according to similarity of triangles)

Measurement results	The actual height
31,6 meters	32 meters
17,7meters	18 meters
40,2 meters	40 meters

Measuring error $\approx \pm 0.2-0.4$

Method with the laser measure tape



Conclusion

We covered some ways of measuring heights. With the help of our method we have measured the height of the hills. We have learned that height is changing it time due to several factors.