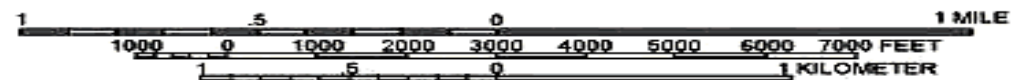
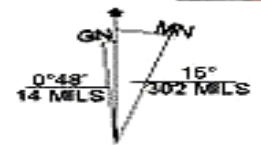
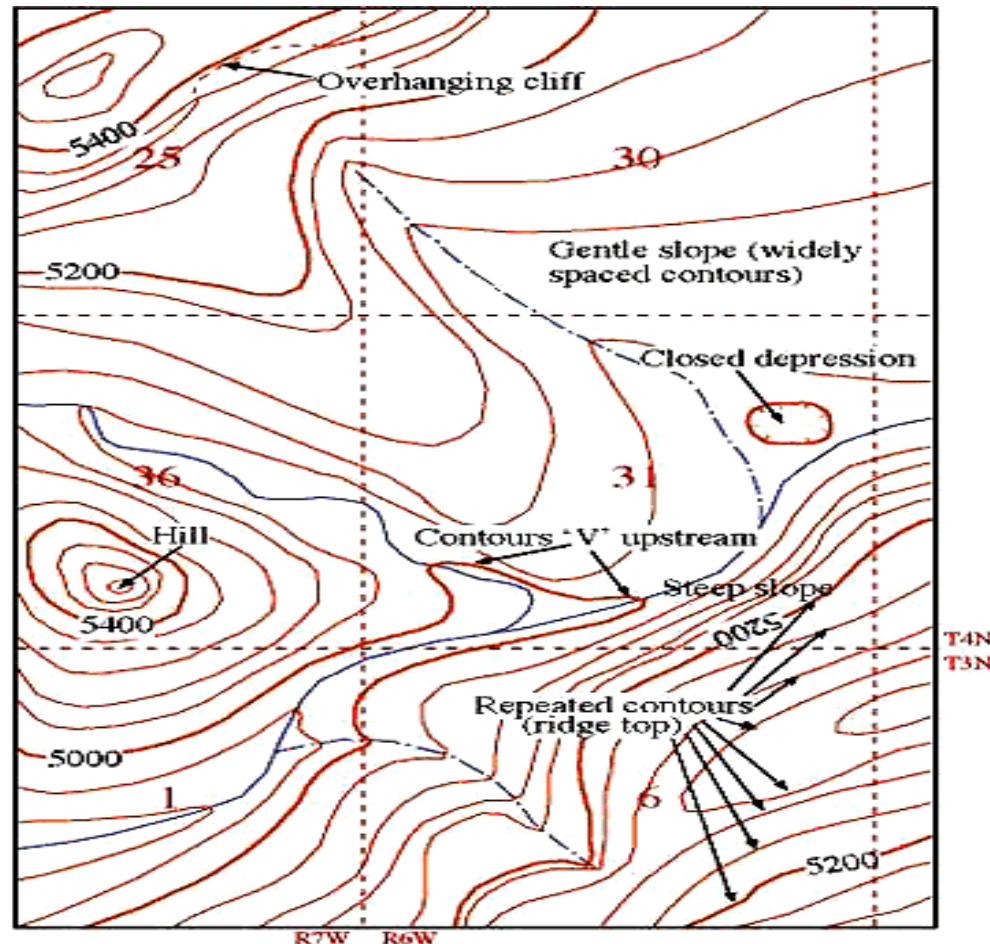


Topographical Maps



UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

CONTOUR INTERVAL 40 FEET
SUPPLEMENTARY CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

What is a Topographical Map?

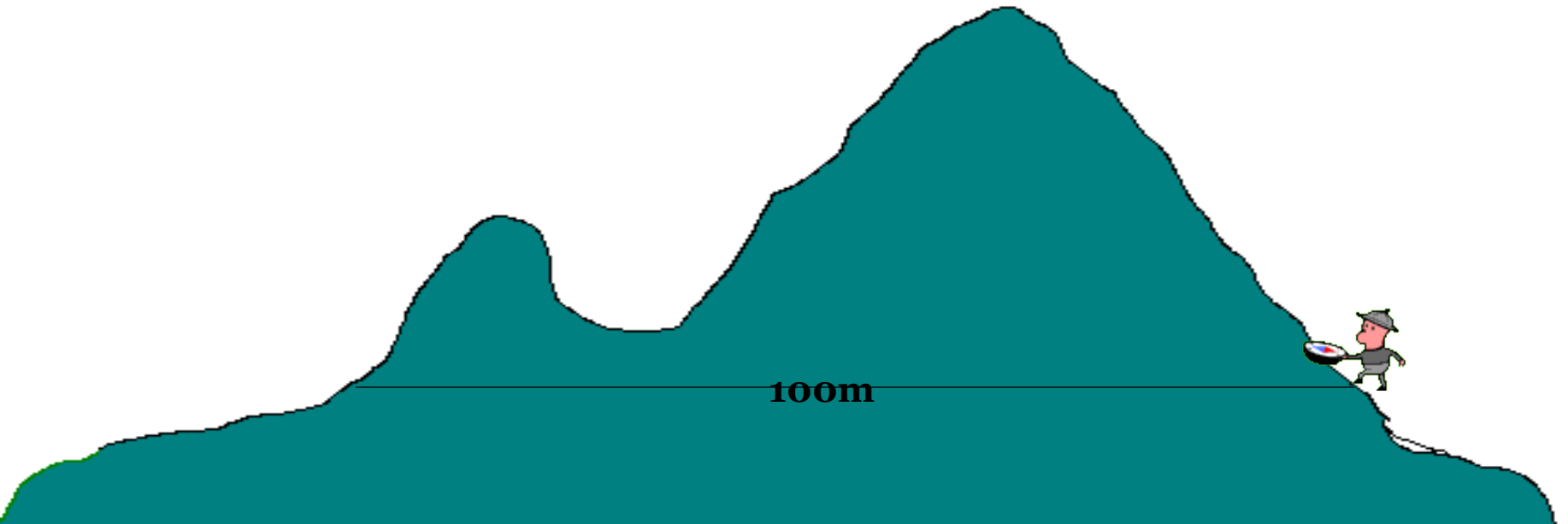
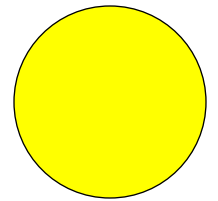
In contrast to most maps, a topographical map shows the shape of the Earth's surface by using **contour lines**.

Contours are imaginary lines that join points of equal elevation above or below sea level.

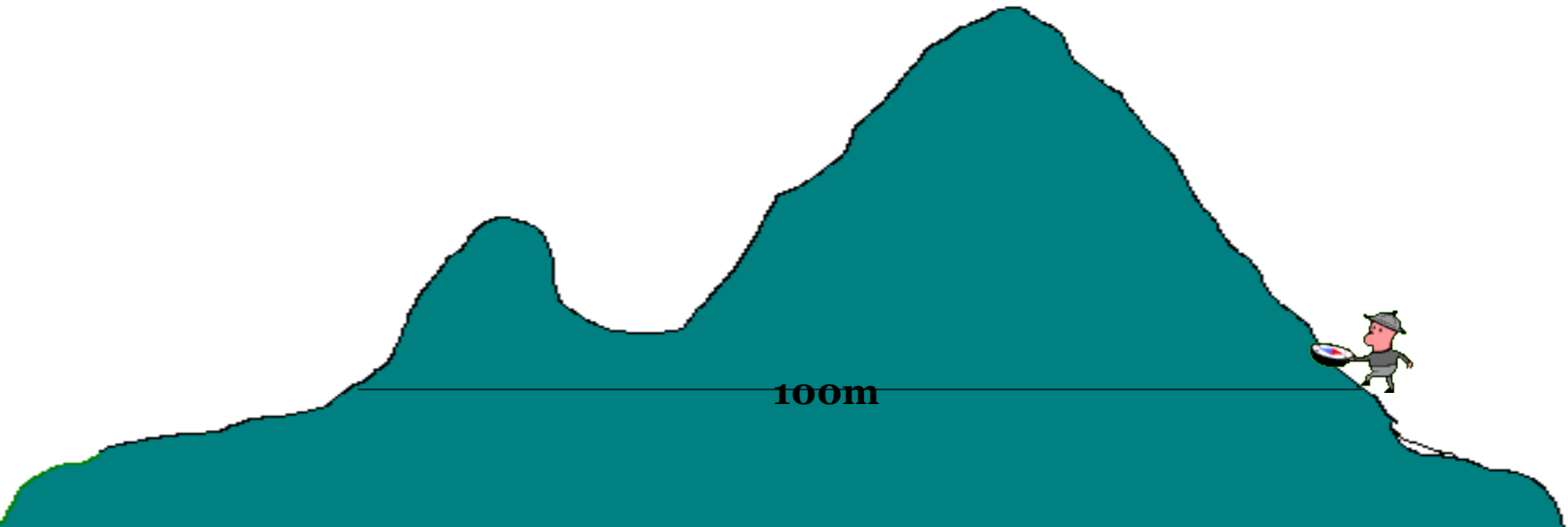
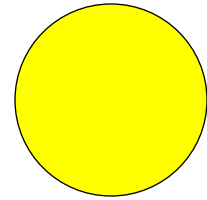
Let's take a walk up a hill!



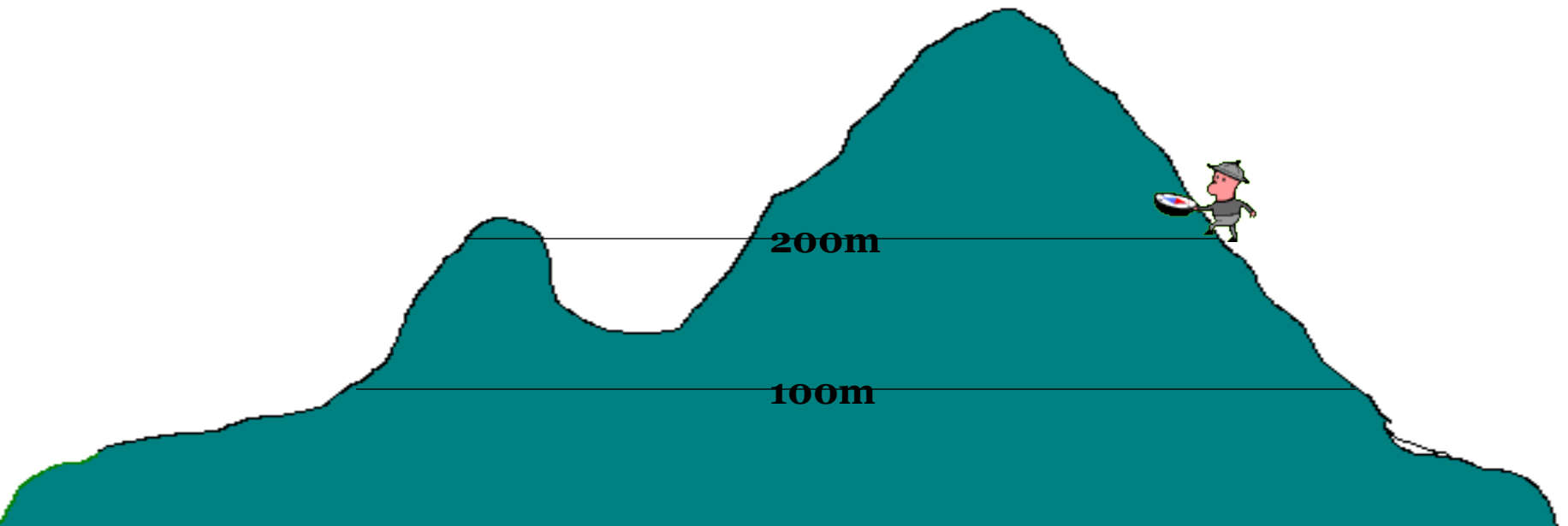
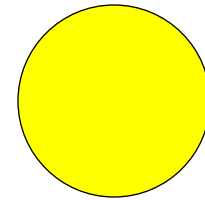
We're now at an elevation of 100 meters.



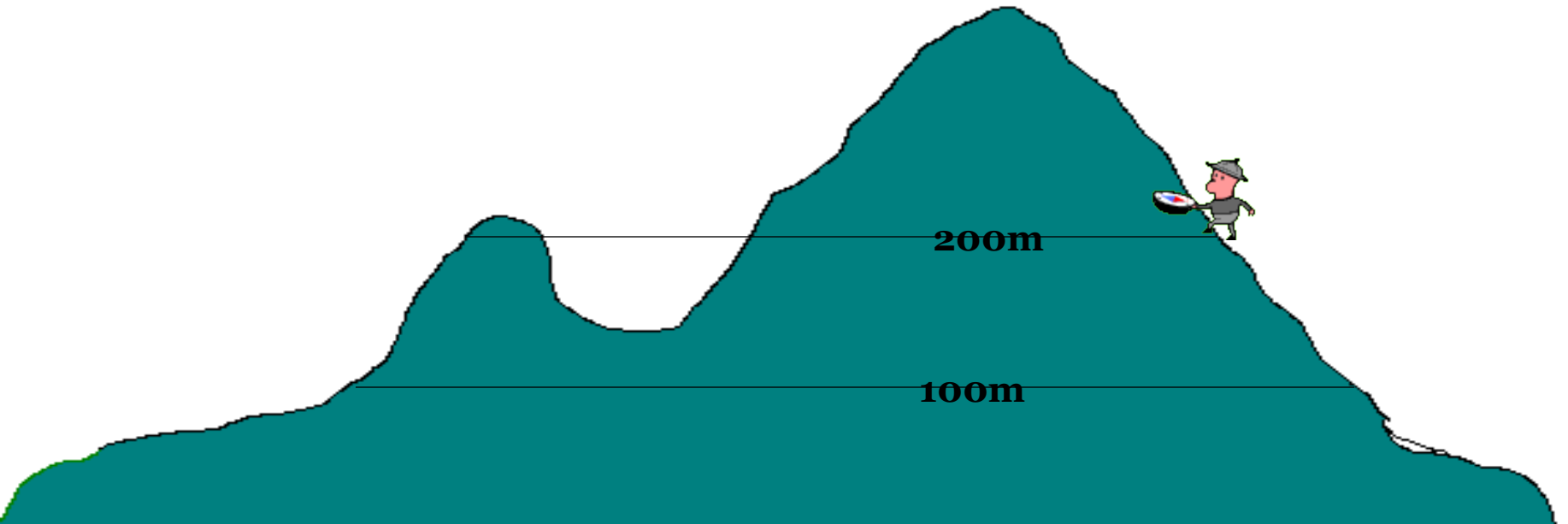
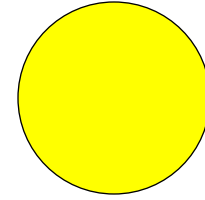
Let's keep going!



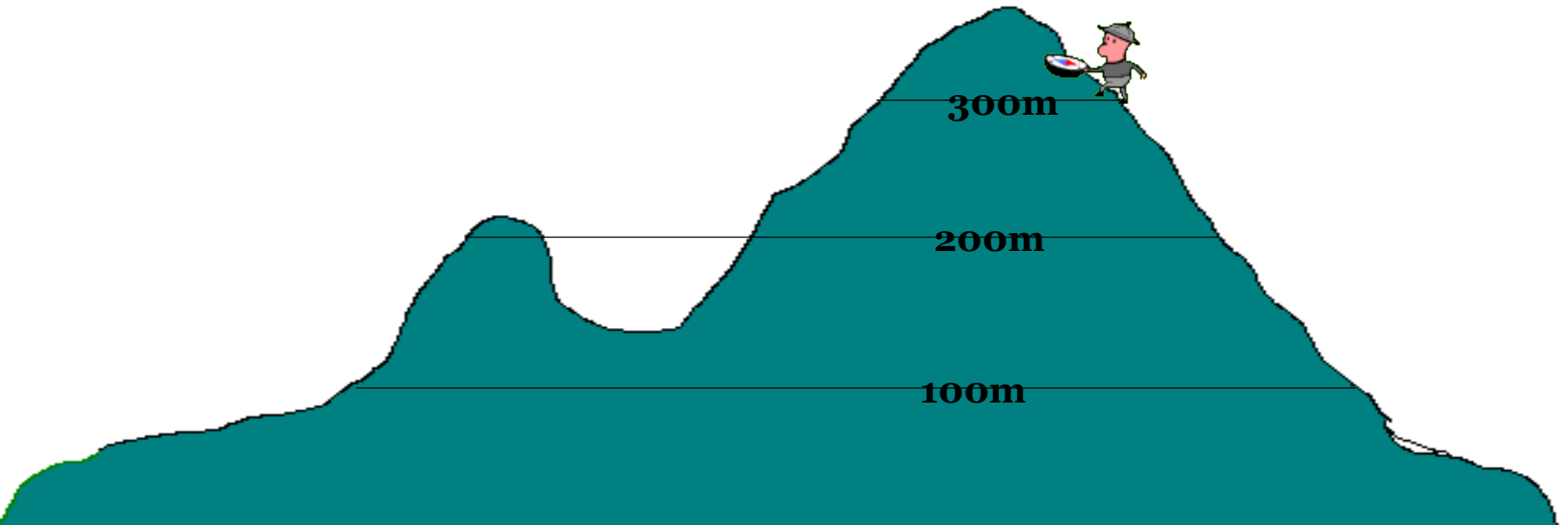
Now we're at 200m.



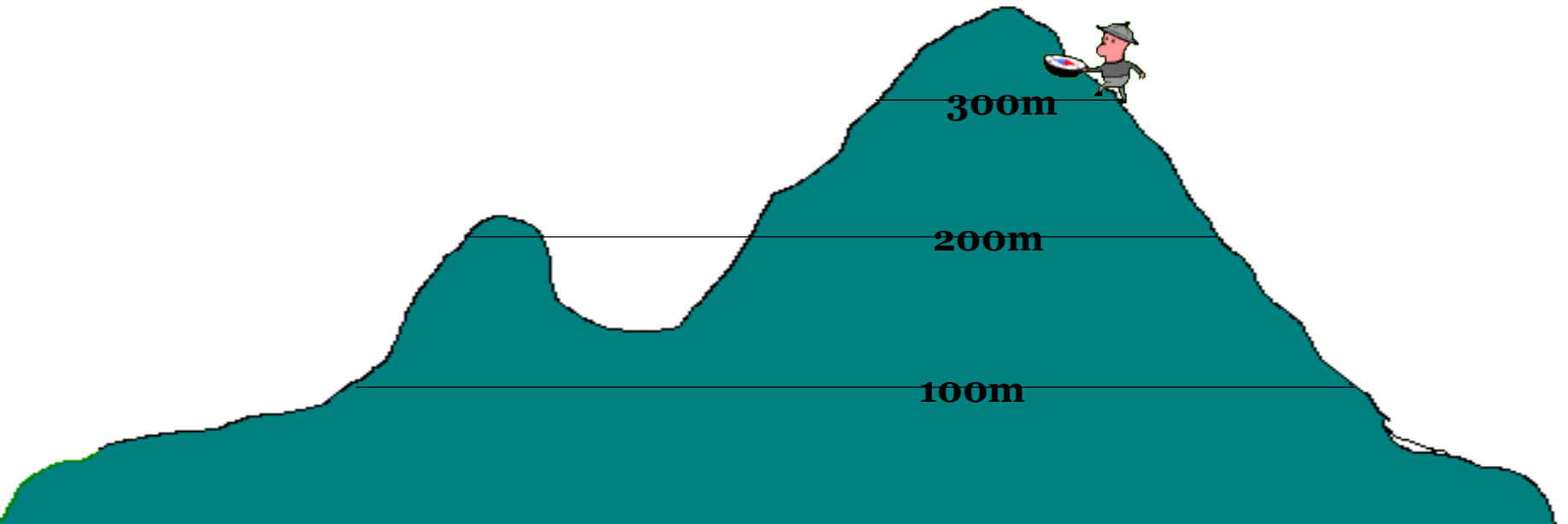
Shall we march on?



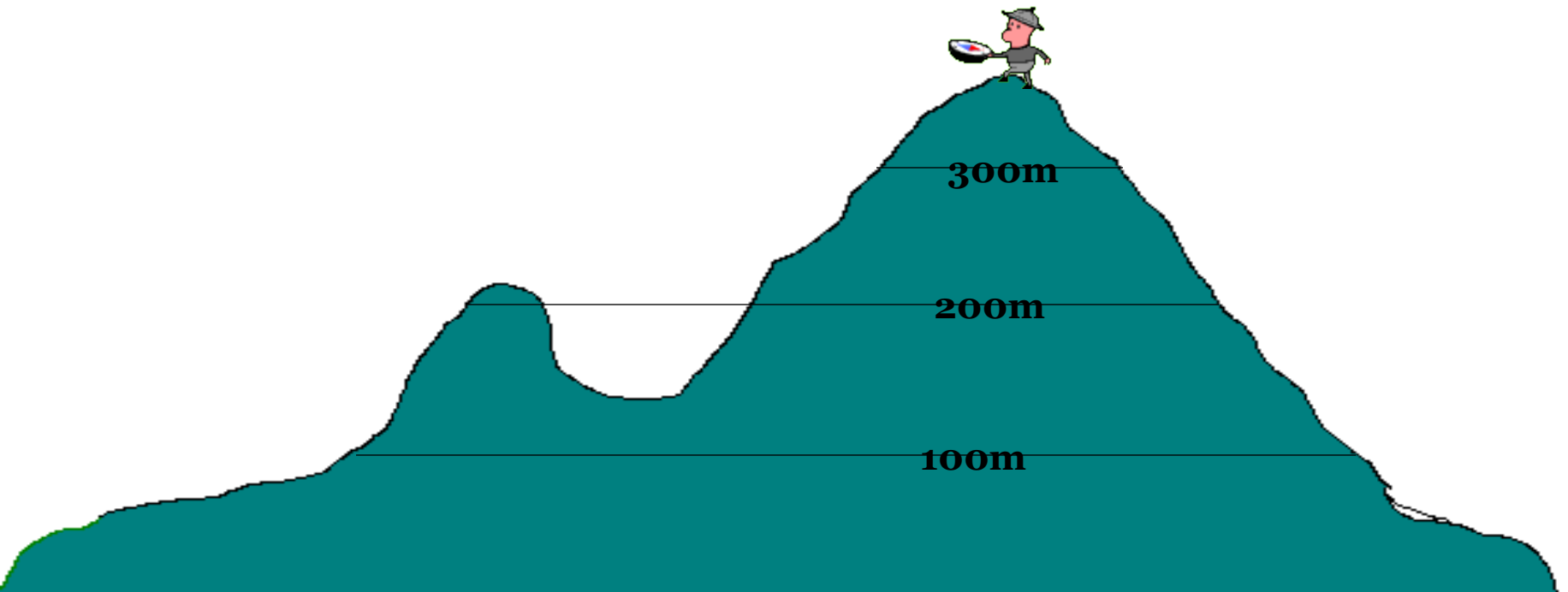
We've made it to 300m!

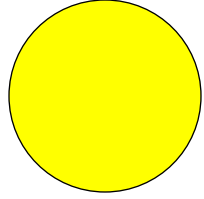


On to the peak!



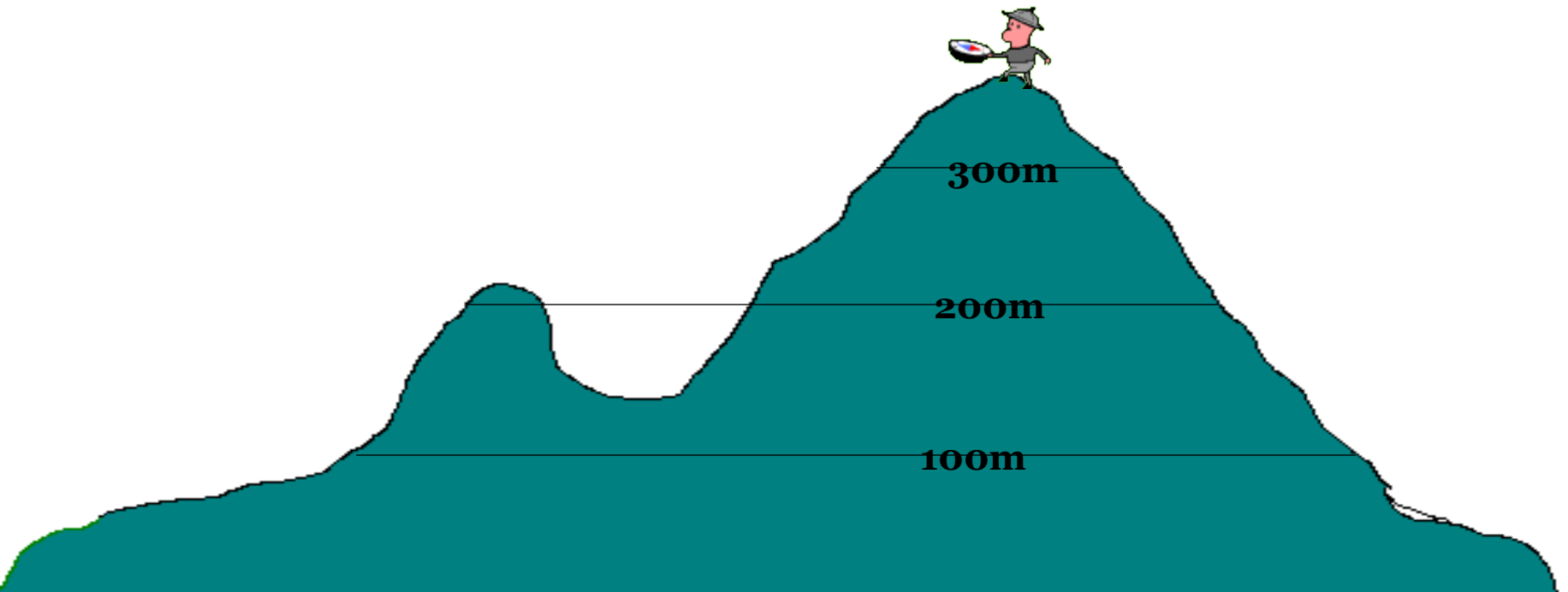
We're on the peak, but what's our elevation?

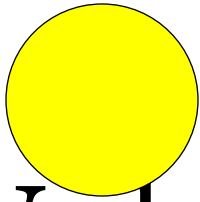




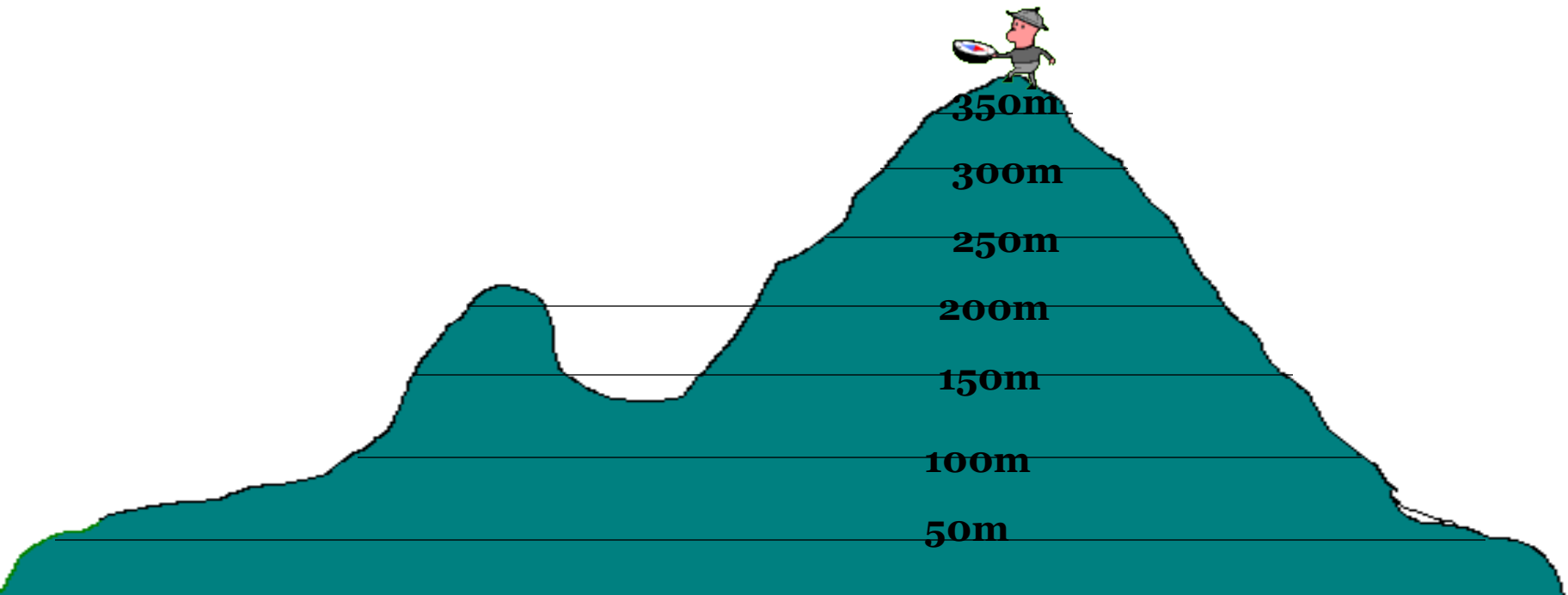
Any ideas?

Let's add contour lines for every 50 meters and see if that helps.

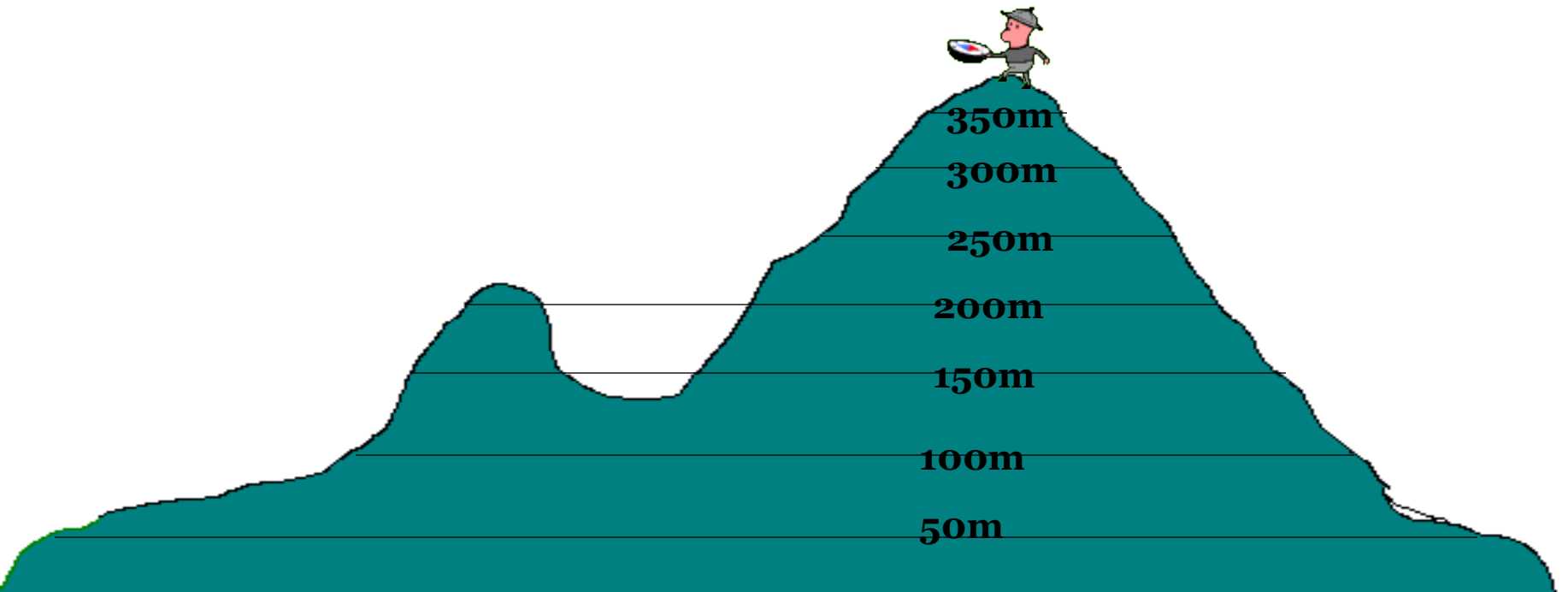
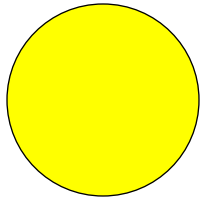




We know that we are above 350m, but less than 400m.

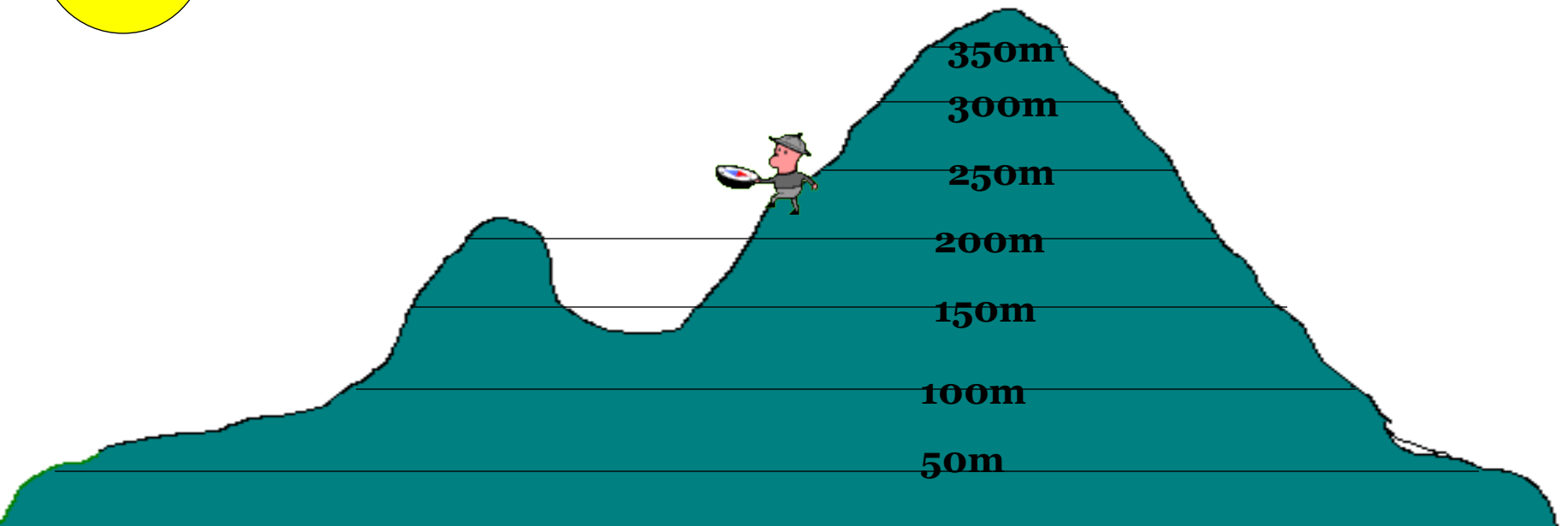
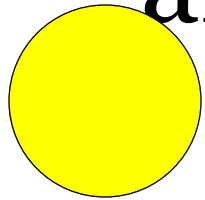


Let's head down the hill, it's getting late!

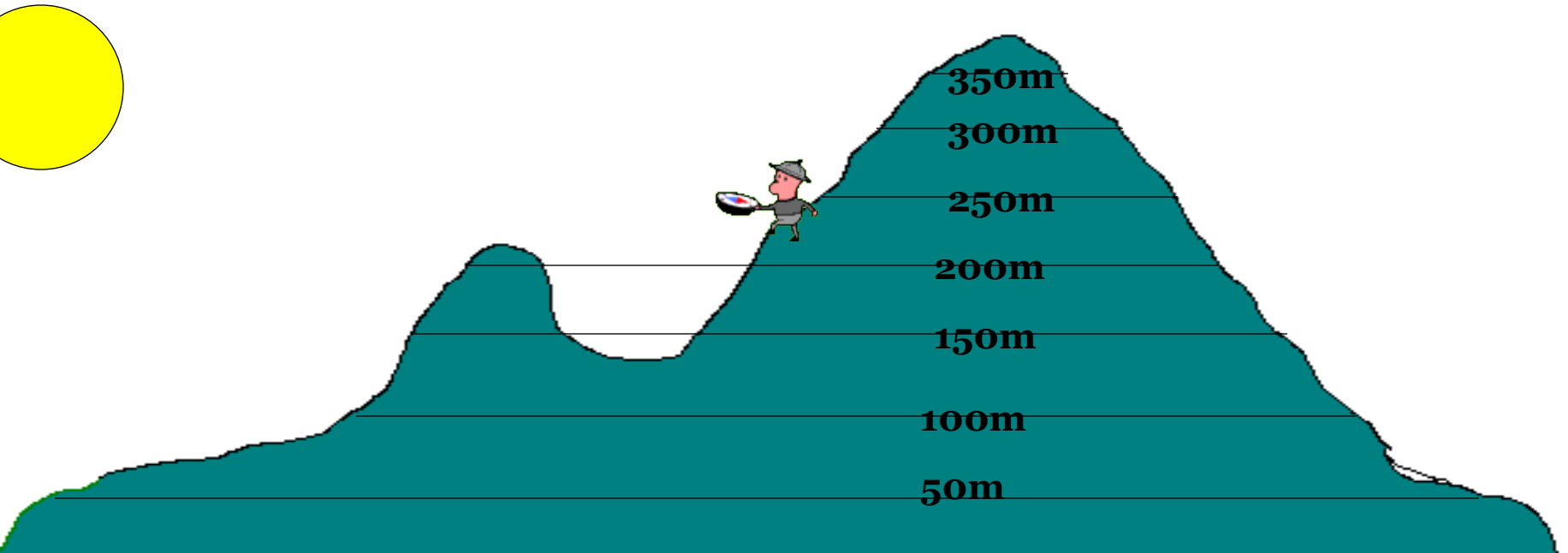


Now what's our elevation?

If you said somewhere
between 200m and 250m you
are right!

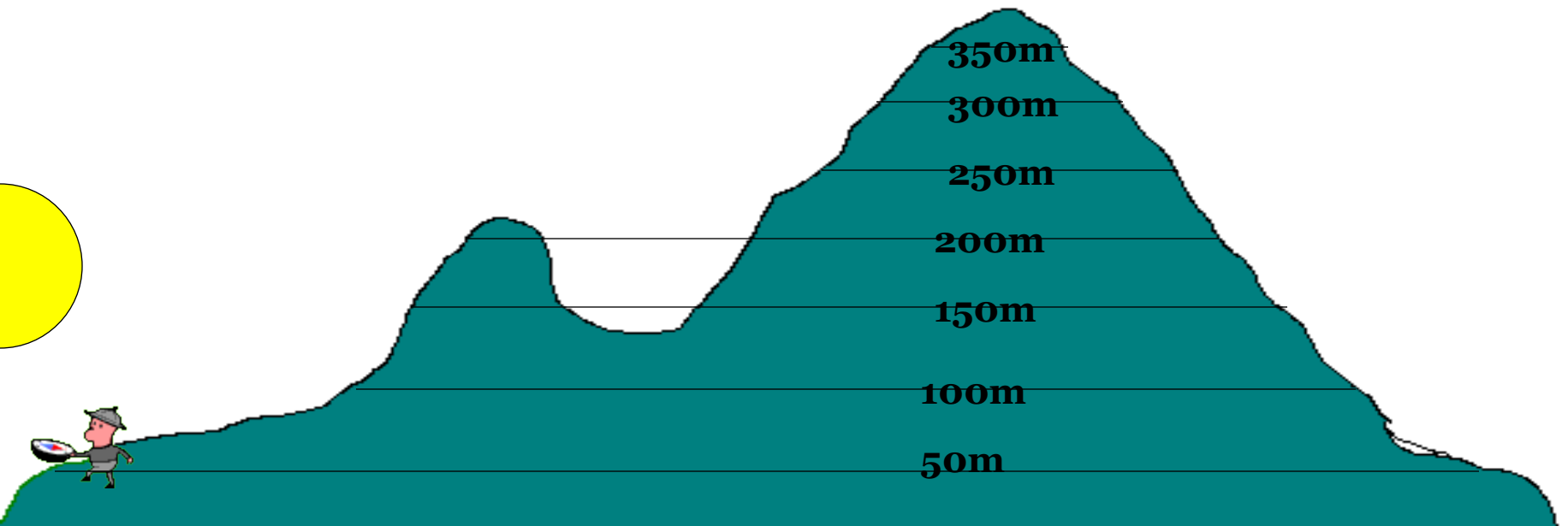


Let's try this again!



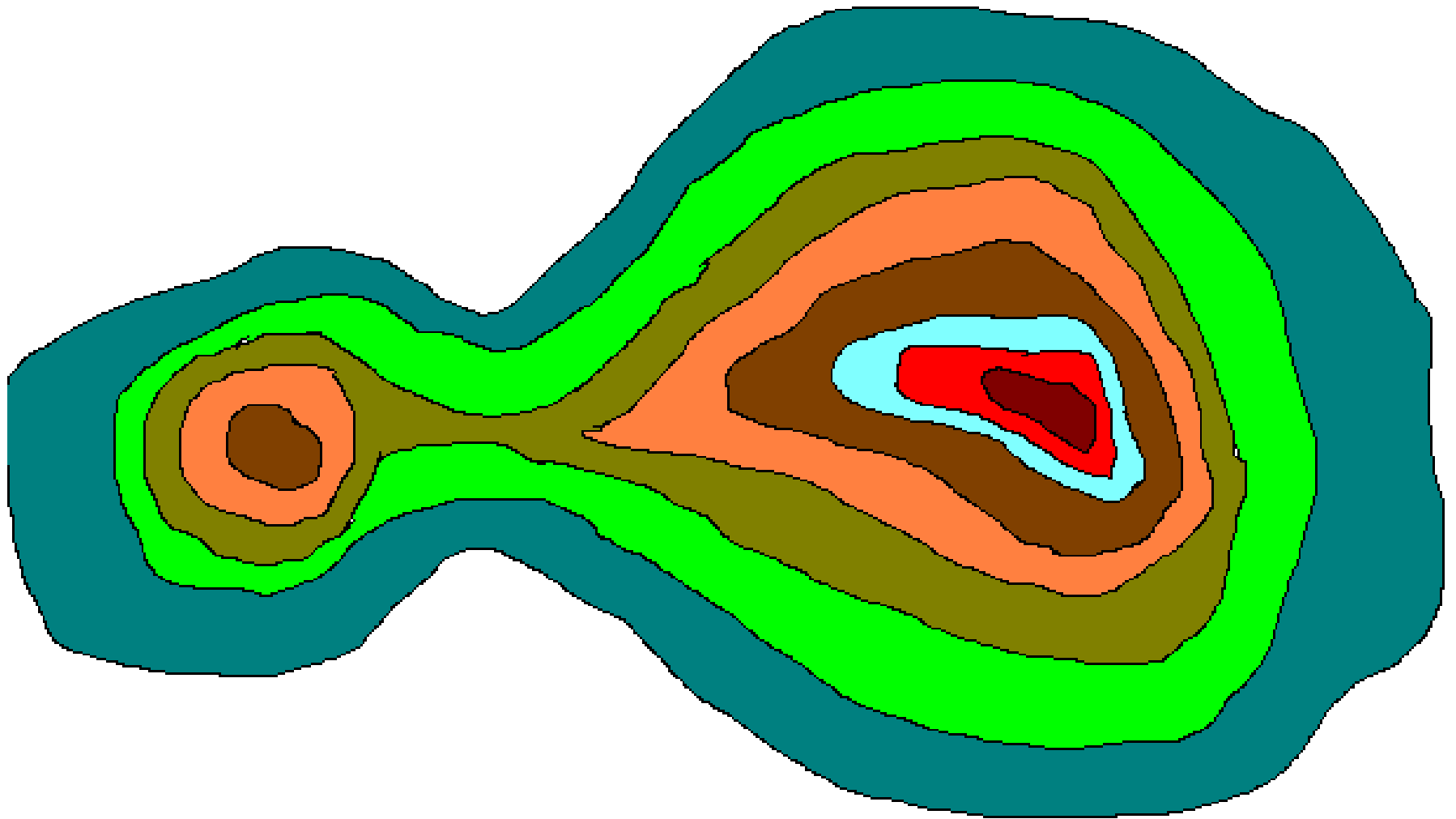
What's our elevation now?

If you said 50m or just under,
you're right!

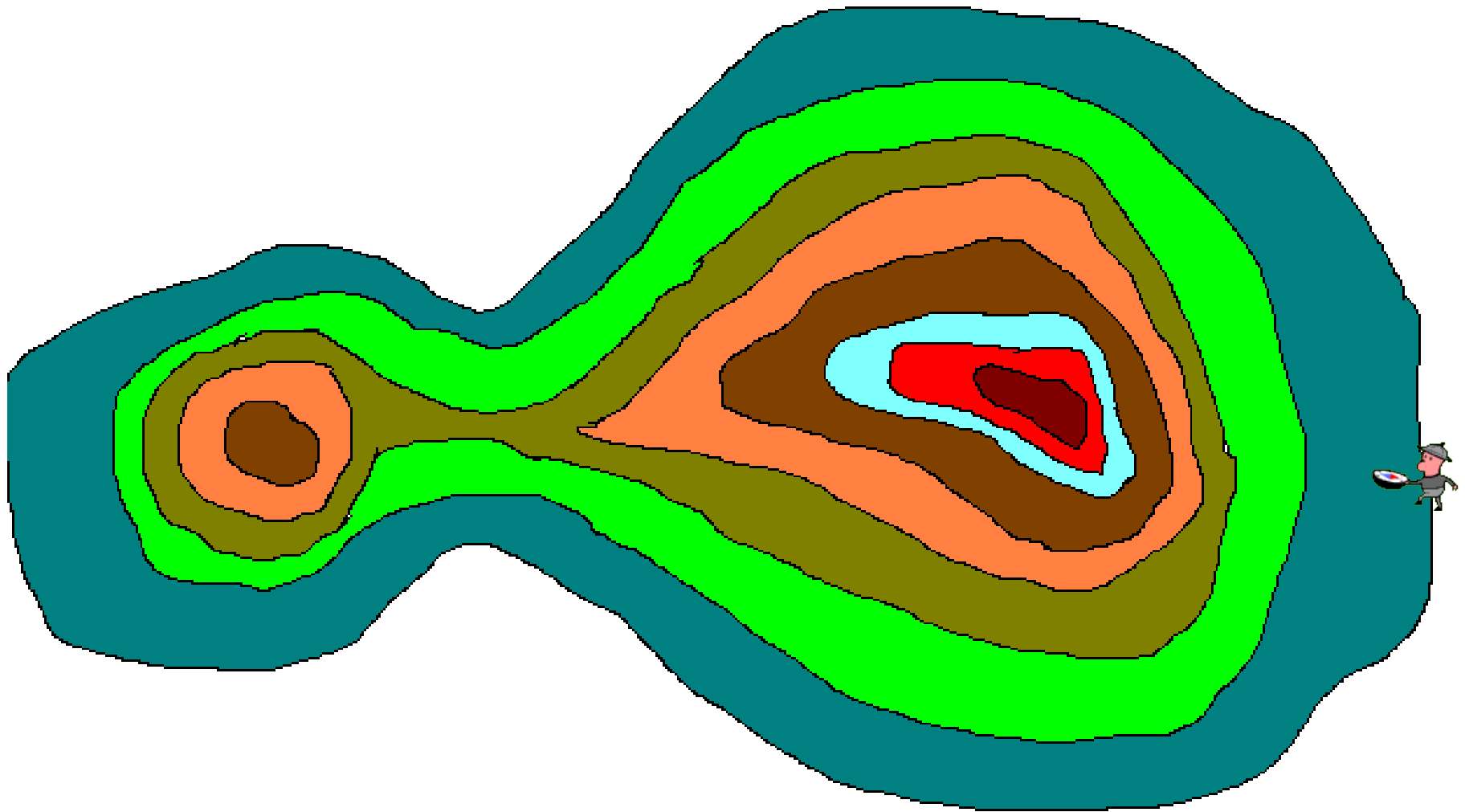


Let's
now look at the
same hill, but the
way we might see it
from an airplane!

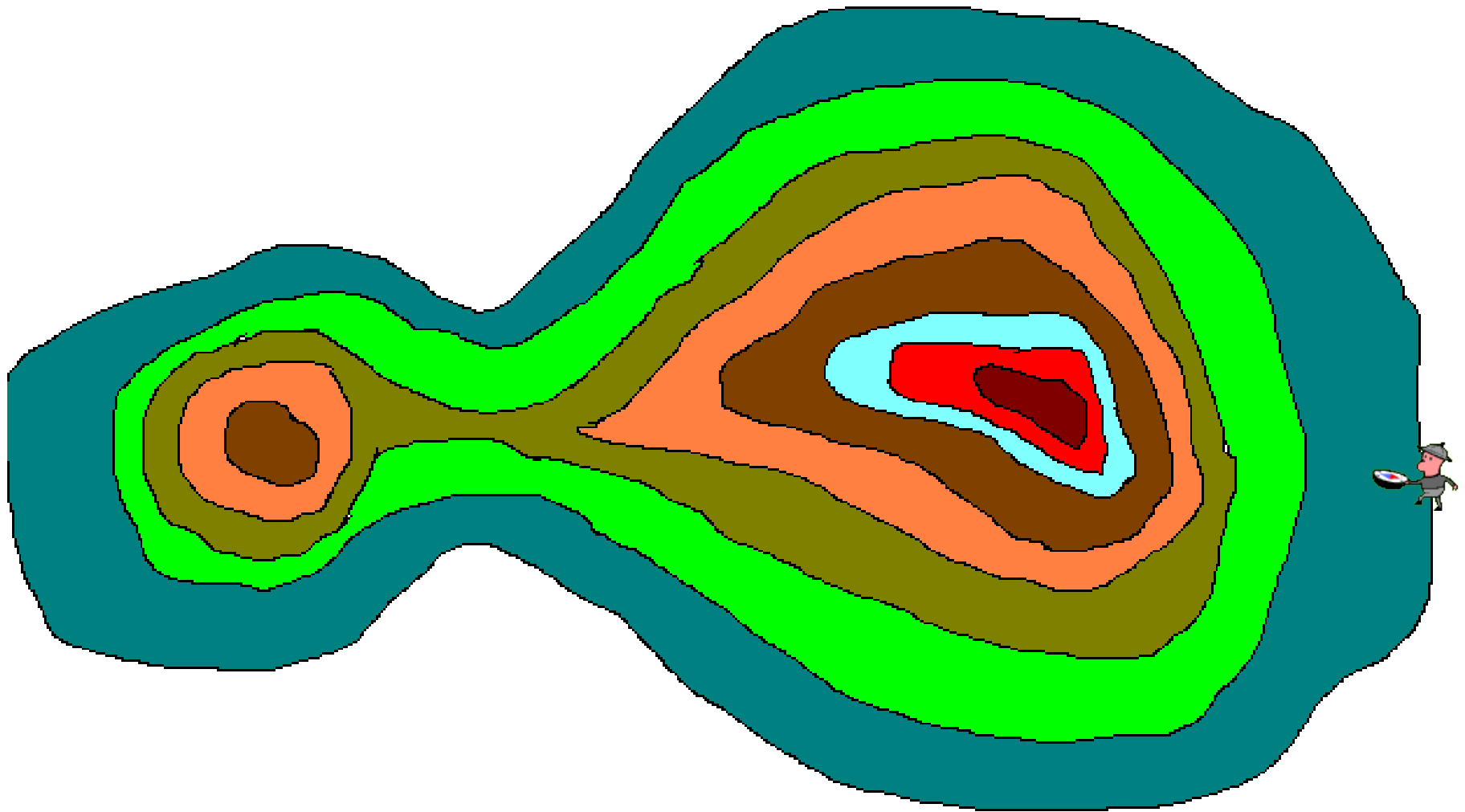
Each color change represents a 50 meter increase.



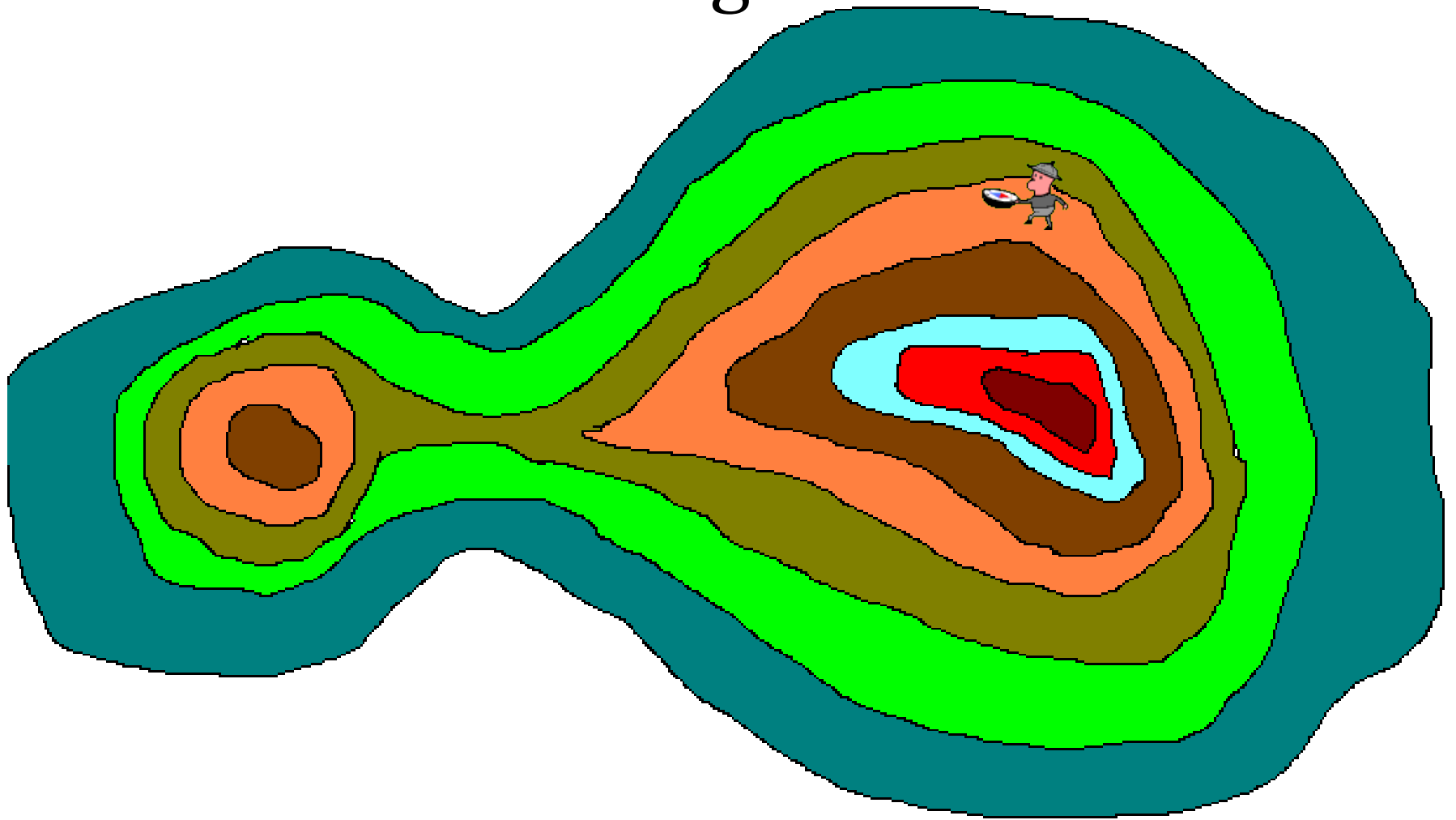
Now, let's try the same hike! Our elevation is 0 meters.



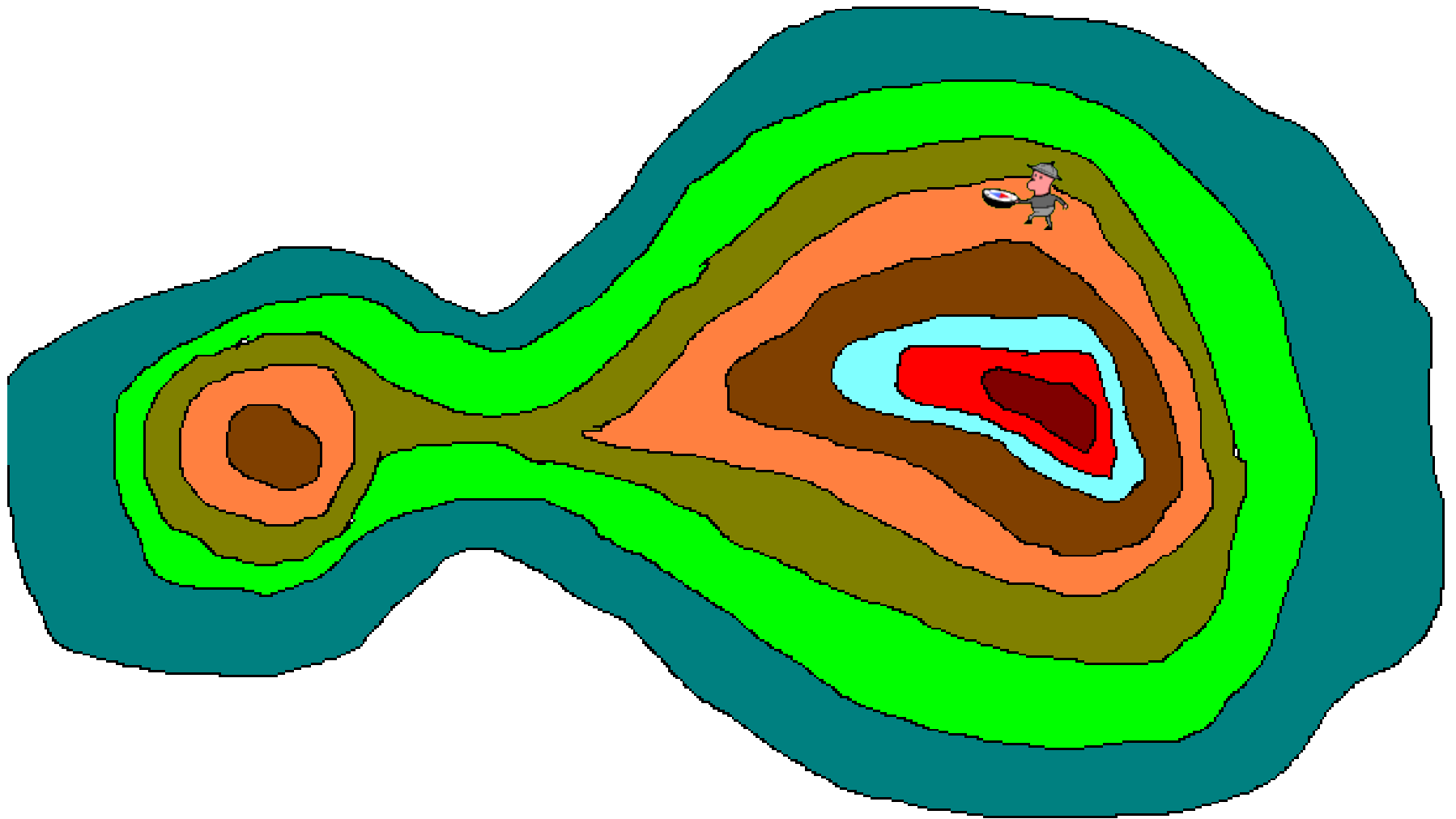
Now what is our elevation?



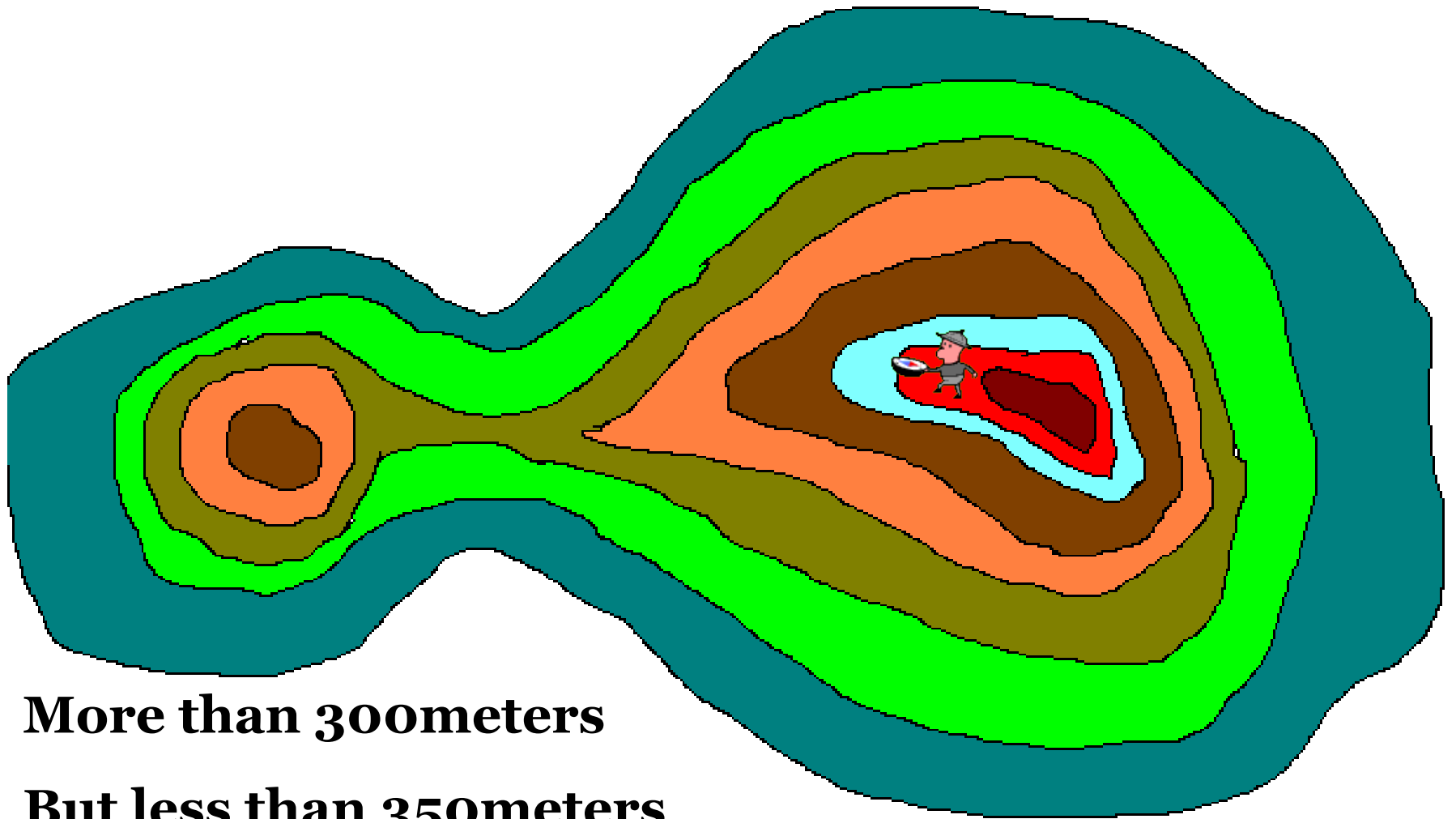
If you said more than 150 meters,
but less than 200 meters your
right!



Let's go a little higher.



Think you know our elevation
now?

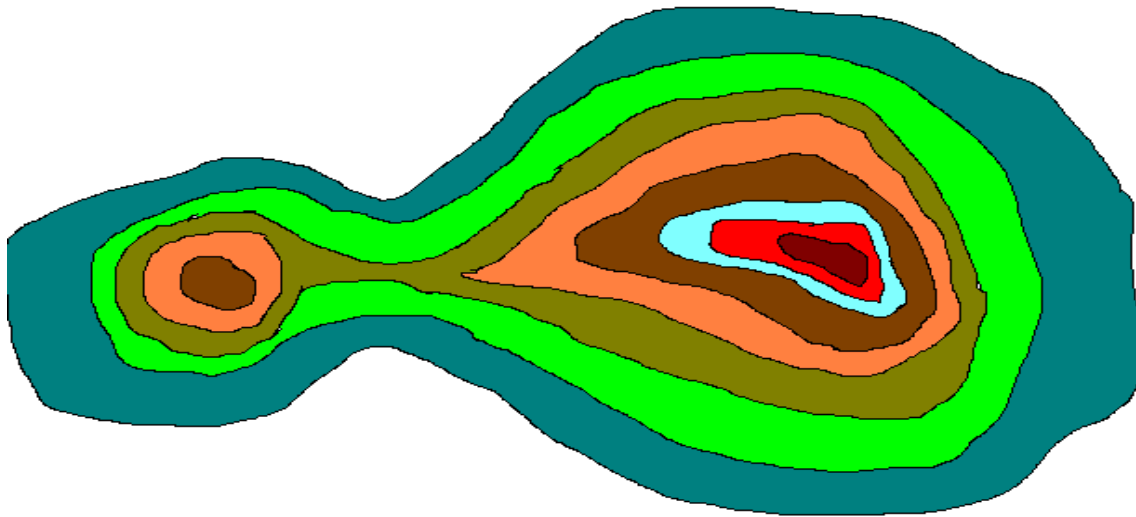


More than 300meters

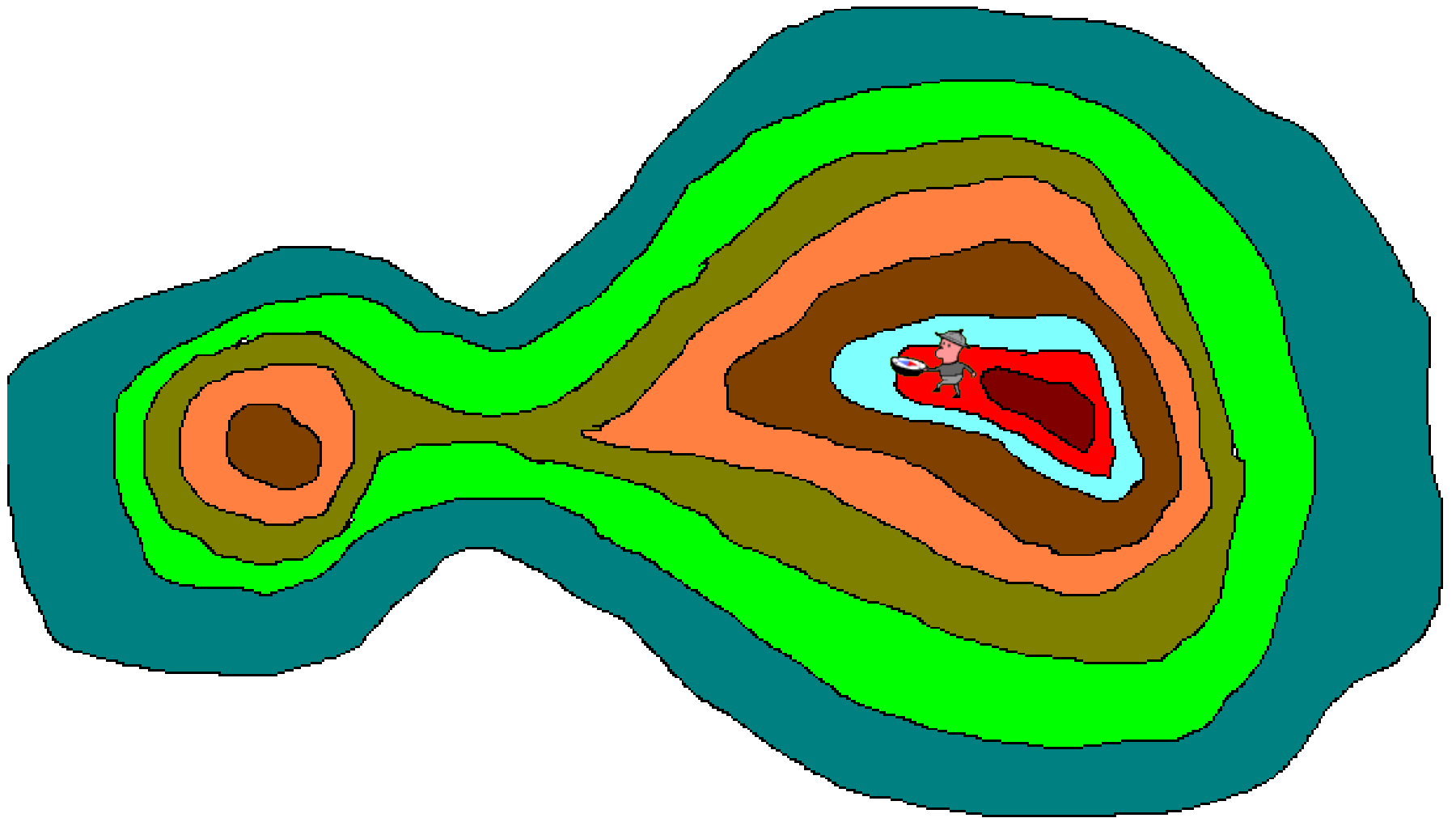
But less than 350meters

If we were standing on the peak,
what would be our elevation?

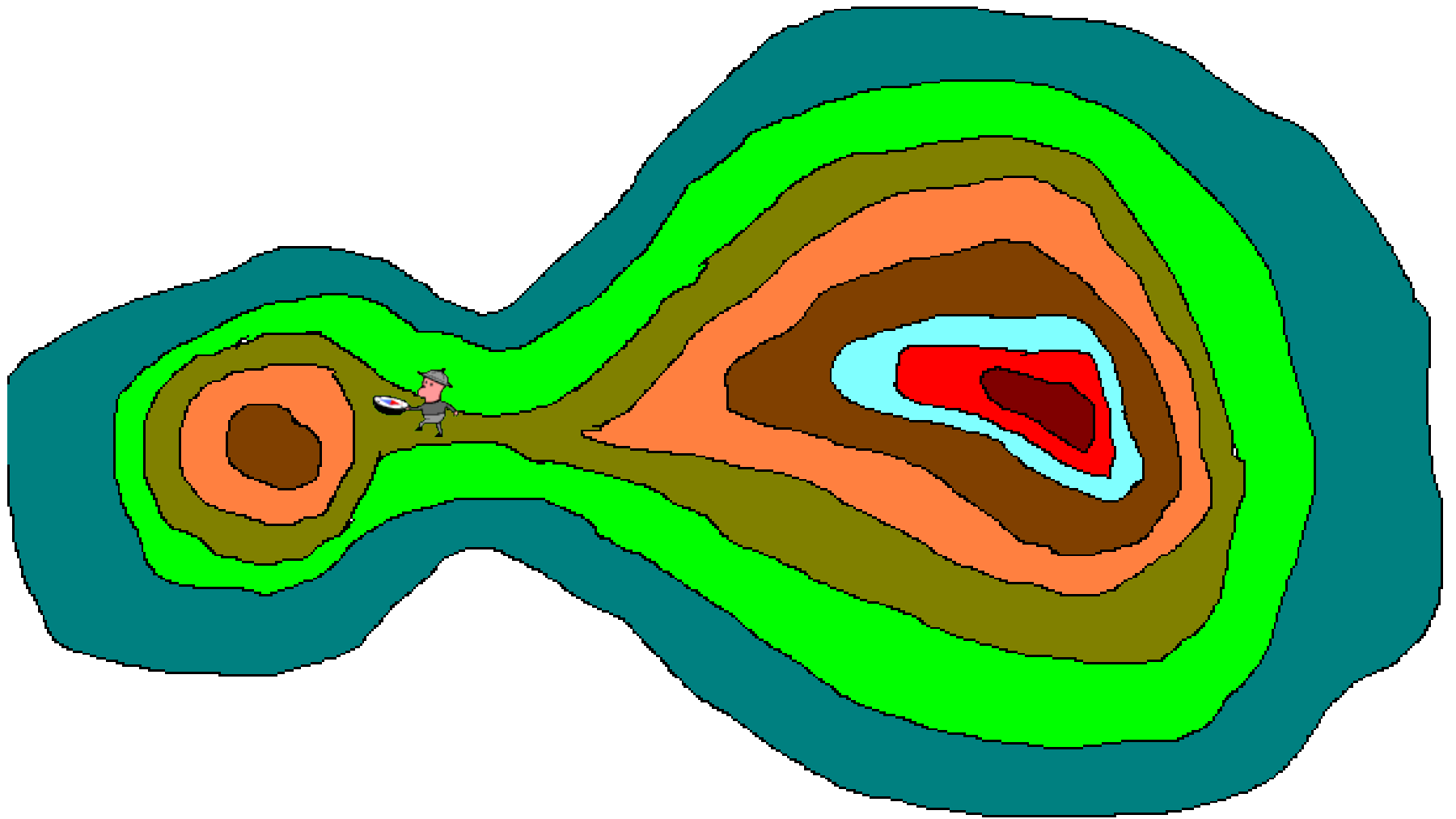
- More than 350 meters,
less than 400 meters



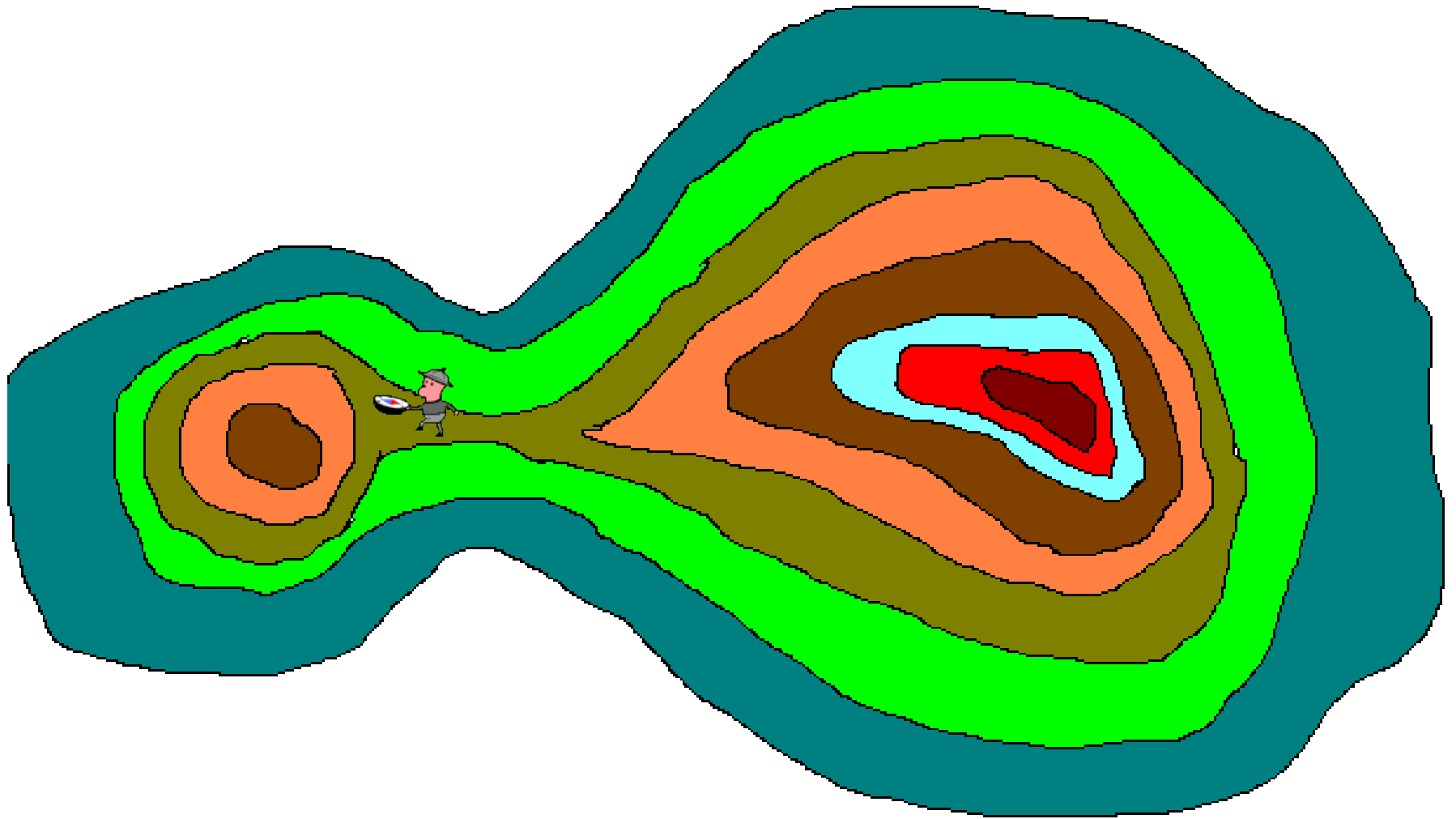
Let's head down hill.



Know our elevation?

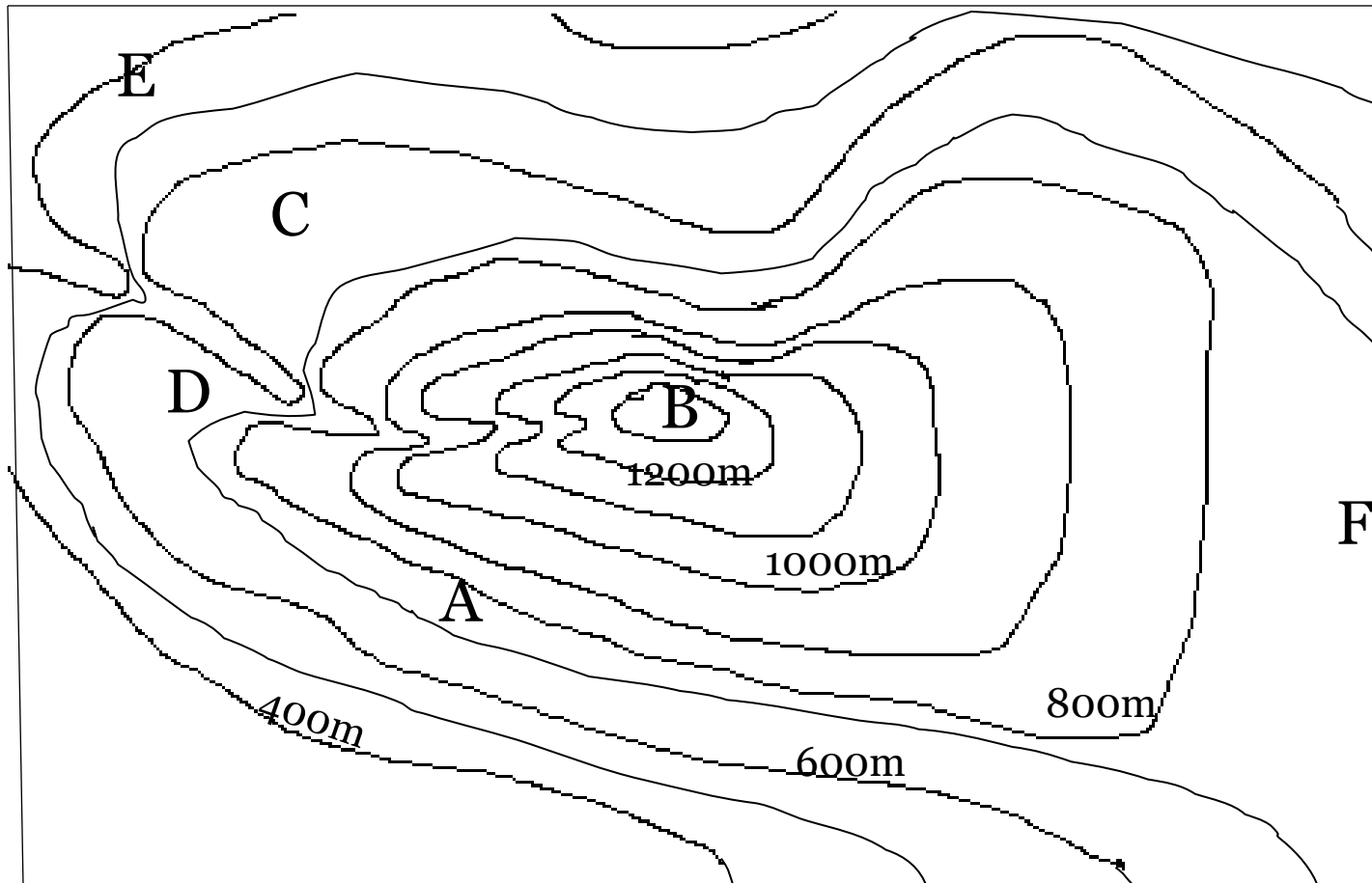


More than 100 meters,
less than 150 meters



I think you got it!

Let's see what you know.

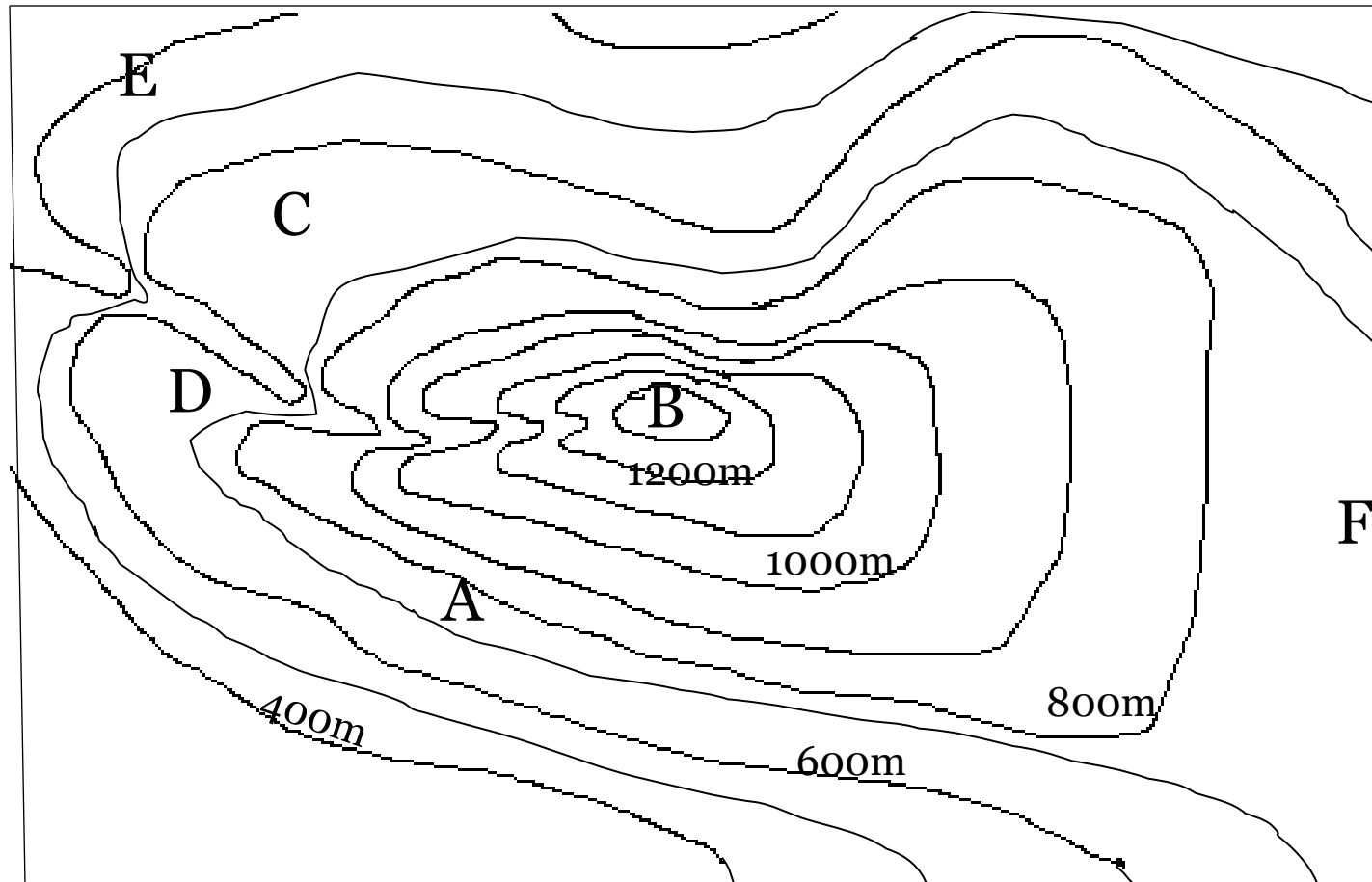


Quiz Time

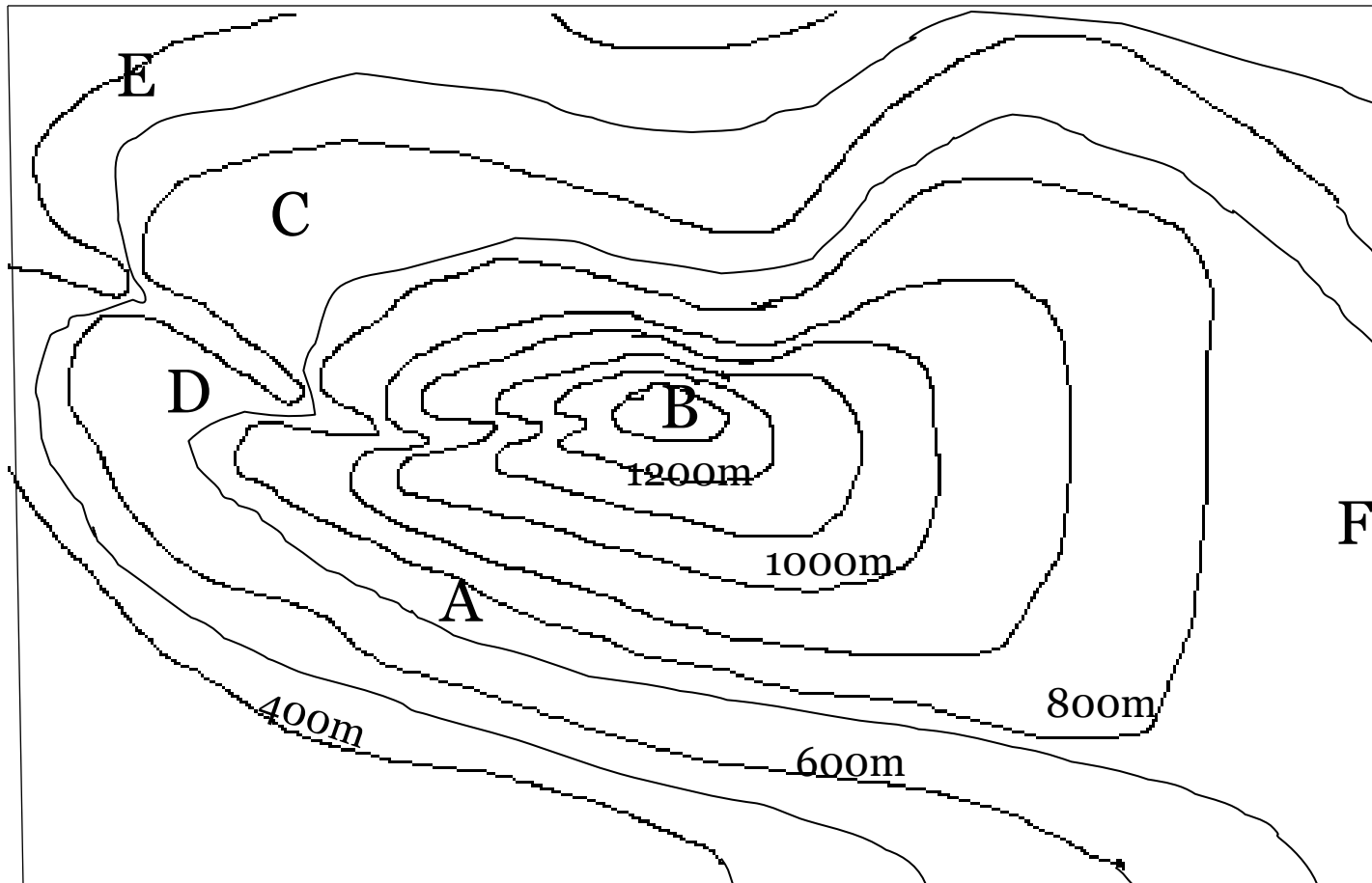
Grab a piece of paper and write your answers to the following questions.

Ready?

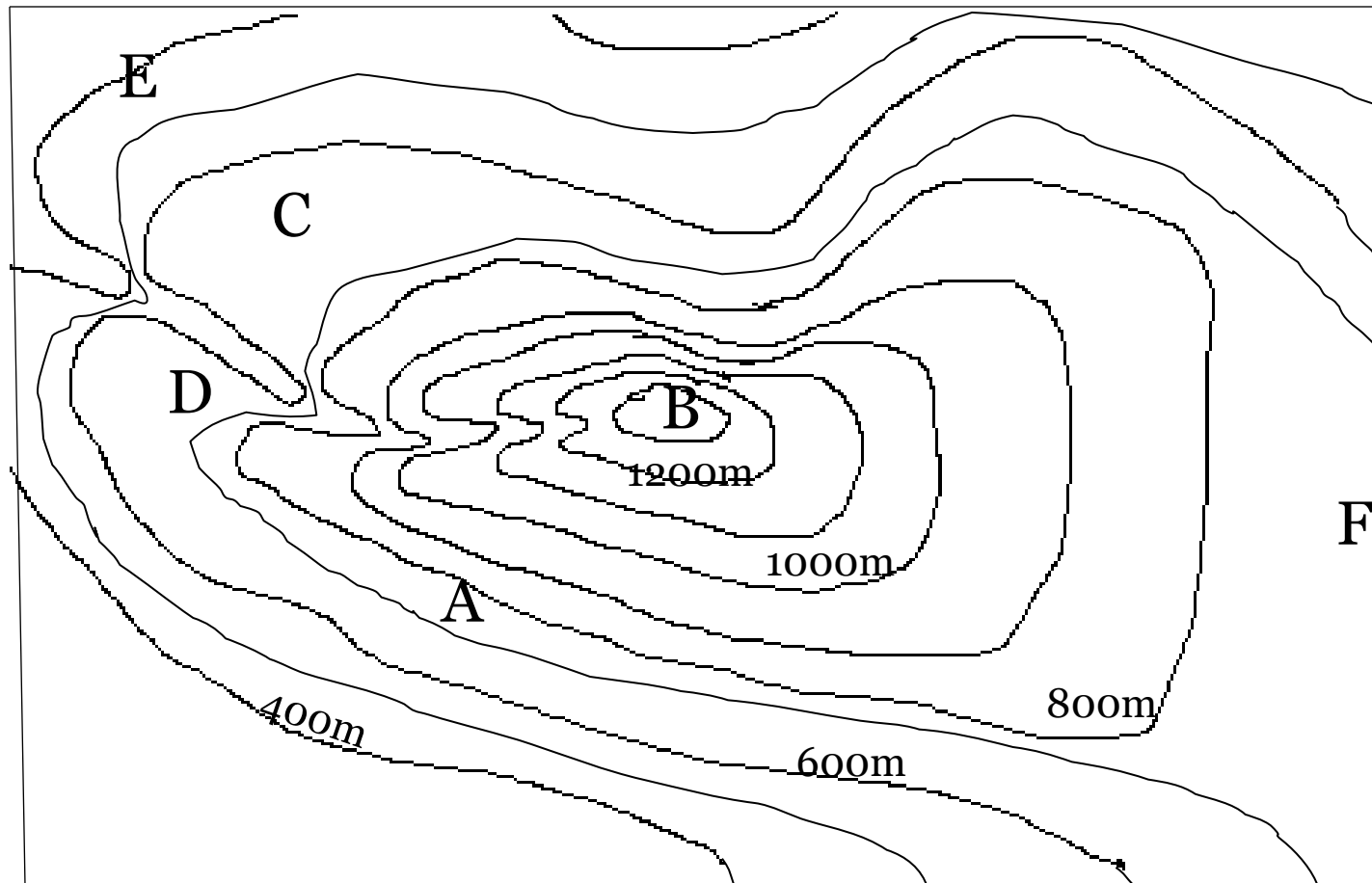
1. Could the elevation at the peak (B) be 1410 meters?



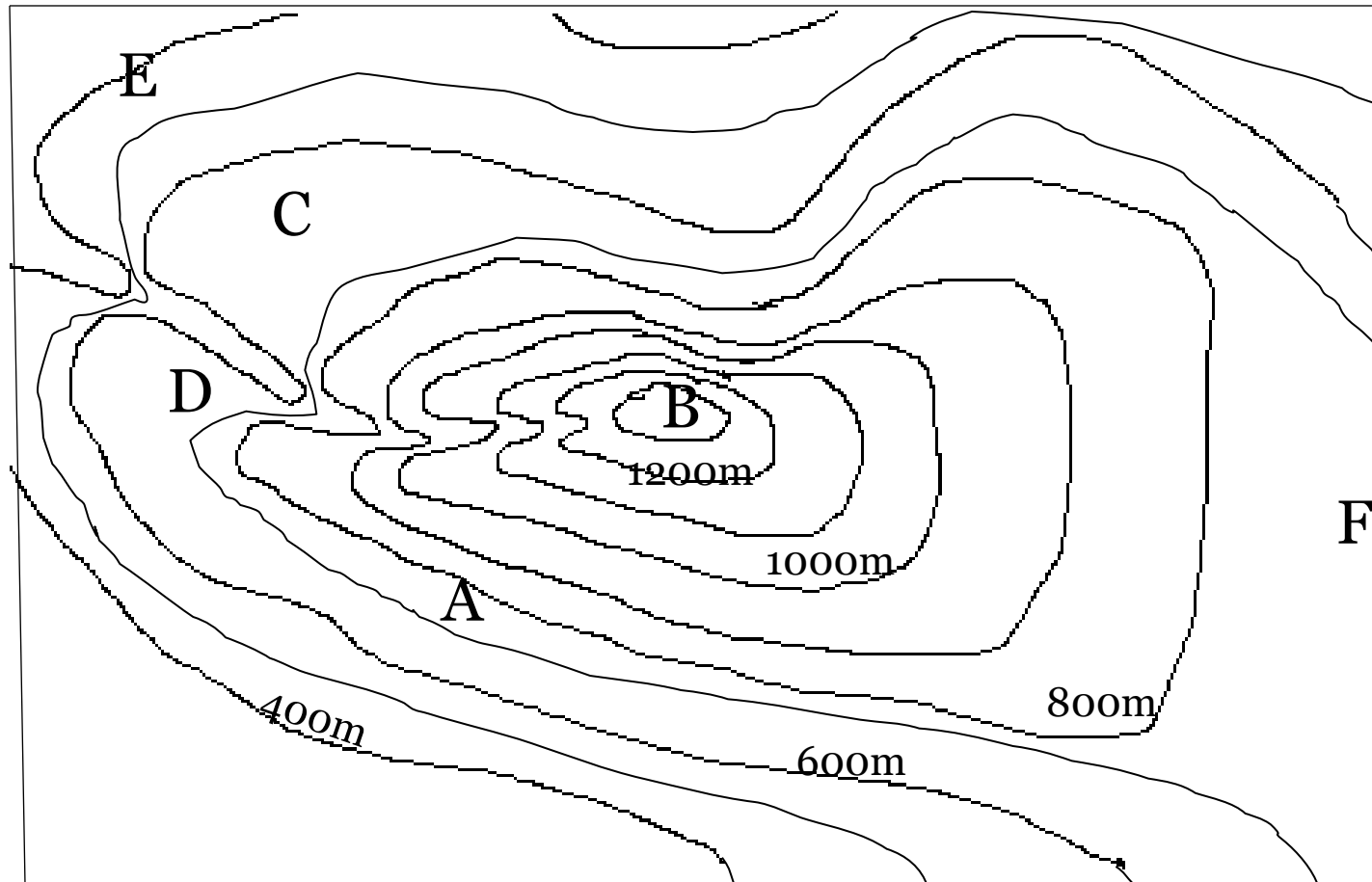
2. What is the elevation at (E)?



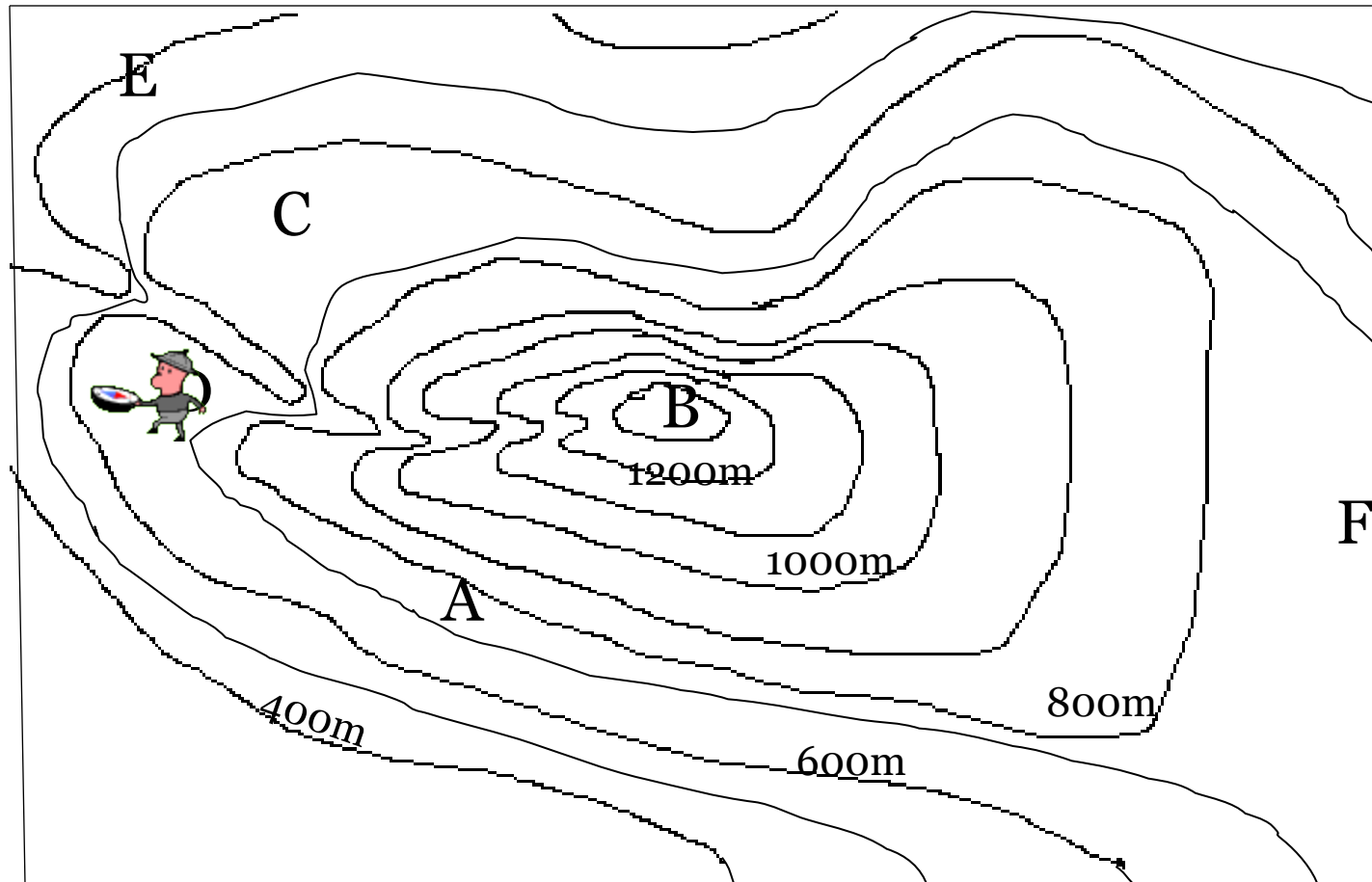
3. What is the elevation difference between (A) and (B)?



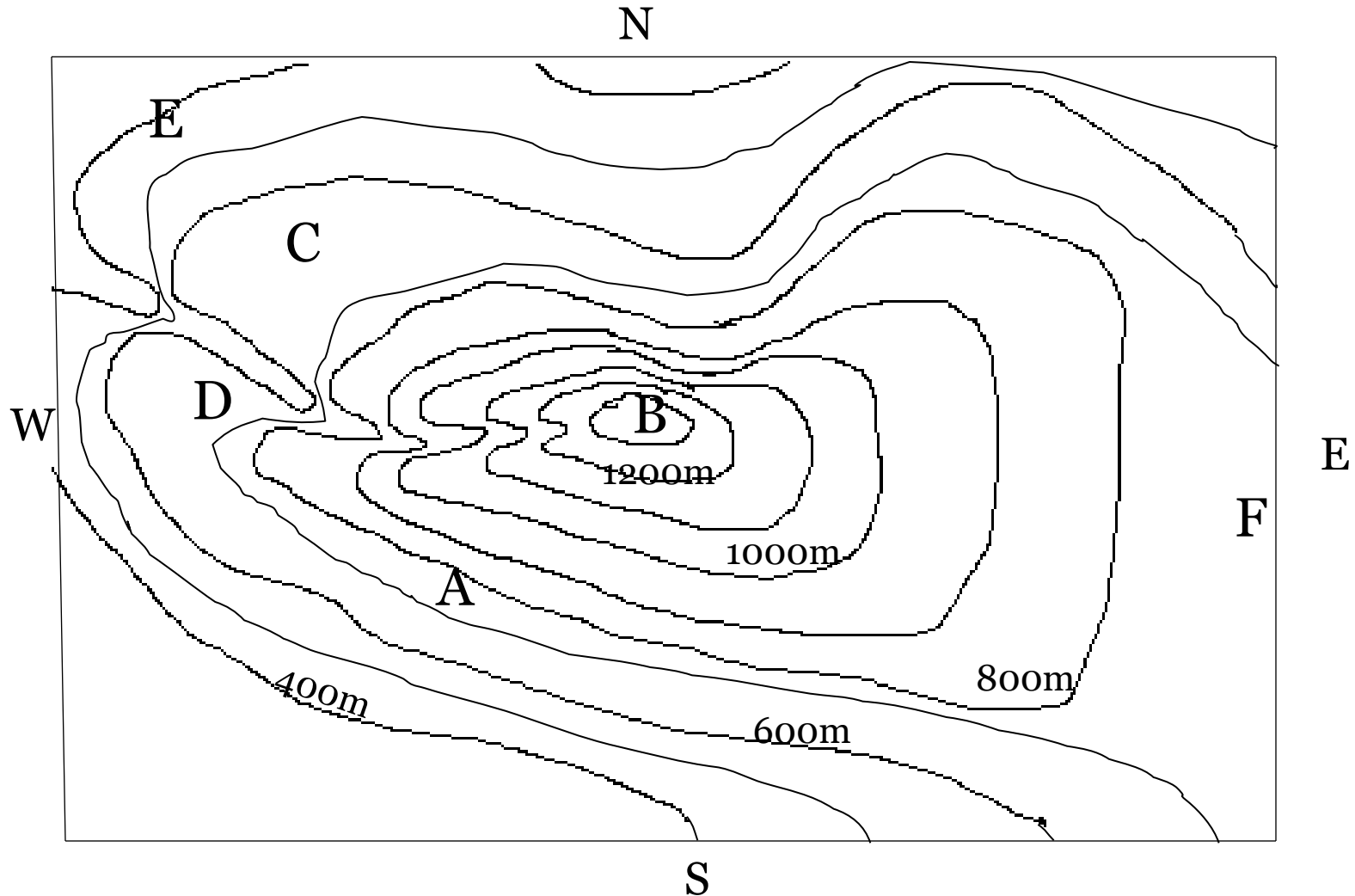
4. Could the elevation at (F) be 417 meters?



5. If you walked a straight line from (D) to (C) would you walk over a ridge or down a valley?



6. Just looking at the map, would it be easier to head down from the peak going East, or going North?



Answers!

- 1. No :The elevation must be under 1400 meters, but over 1300 meters.
- 2. about 400 meters

Answers!

- 3. (A) is probably close to the 750 meter line, (B) is above 1300 meters. The difference between the two would probably be 650 to 700 meters.

Answers!

- 4. No: It must be more than 700 meters and less than 800 meters.
- 5. Down a valley: If the contour lines point up the slope it's a valley, if they point down the slope it's a ridge.

Answers!

- 6. East: When contour lines are close together that means there is a steep slope, the further apart the lines, the more gentle the slope and therefore an easier walk! Go east!