

Measuring the Earth's Circumference

Part I

OUTDOOR w/GPS Units

Work with a Partner, each has a GPS. Designate True North before continuing.



Set up each GPS separately.

1. Both partners go on the GPS to Main Menu Page: Select Setup: Units.
2. Both GPS's should have Map Datum: WGS84.
3. ONE GPS should have Position Format of: **Degrees Minutes Seconds**
hddd° mm' ss.s"
4. ONE GPS should have Position Format of: **Universal Transverse Mercator**
UTM UPS (meters)

Once this is set up, return to the GPS Satellite Page.

5. Walk until the LATITUDE on the DegreesMinutesSeconds GPS Unit shows a WHOLE NUMBER in the Seconds. Once you arrive, fill in this information at this position, "POSITION A".

	Latitude in D°M'S"	Latitude in UTM
POSITION A		meters
POSITION B		meters
		meters

6. WALK DIRECTLY NORTH FOR ONE WHOLE SECOND according to the DegreesMinutesSeconds GPS Unit. When you arrive at the next sequential whole number, fill in the information for the second position in the table above, "POSTION B"
7. Subtract B from A to get your TOTAL METERS in 1 SECOND.
8. Proceed to Part II to Calculate the Circumference of the Earth.

