

Using Math on Mars

Purpose

The purpose of this activity is to review math-related terms and to reinforce the math skills of measurement and measurement conversions.

Students will be able to

1. Make measurements using varying units.
2. Convert measurements from one unit to another.

Important Vocabulary/Key Terms (essential terms in bold)

sol	geology	topography	measurement	planet
centimeter	millimeter	meter	inch	foot
yard	degree	pounds	hours	minutes
seconds	longitude	latitude	distance	weight
width	length	height	time	vertical
horizontal	north	south	east	west
clockwise	counterclockwise	diameter	radius	Mars

Mars Exploration Rover (MER)

Math Analogies (Math vocabulary)

Complete these analogies. (By the way, two of these analogies can have two different answers!)

1. meter : foot :: _____ : inch *(centimeter/millimeter)*
2. longitude : latitude :: horizontal : _____ *(vertical)*
3. north : _____ :: east : west *(south)*
4. _____ : clockwise :: left : right *(counterclockwise)*
5. height : vertical :: _____ : horizontal *(length)*
6. foot : inch :: meter : _____ *(yard)*
7. weight : _____ :: time : hours *(pounds)*
8. _____ : millimeter :: time : seconds *(distance/length)*
9. diameter : width :: radius : $\frac{1}{2}$ _____ *(width)*
10. _____ : \cong 24.5 hours :: day : 24 hours *(sol)*

Mars Measurements (Measurements and Conversions Review)

Convert the following measurements into the units given.

1. 12 inches = _____ foot
 2. 1 yard = _____ feet
 3. 1 meter = _____ centimeters = _____ millimeters
 4. 1 hour = _____ minutes
 5. 1 sol = _____ hours _____ minutes (HINT: Check out the [Earth/Mars Comparison chart](#) at JPL's Mars Rover website for the answer to this one!)
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Measure the items pictured below.

