

MARVELOUS MARTIAN MINERALOGY COMPUTER LAB WORKSHEET

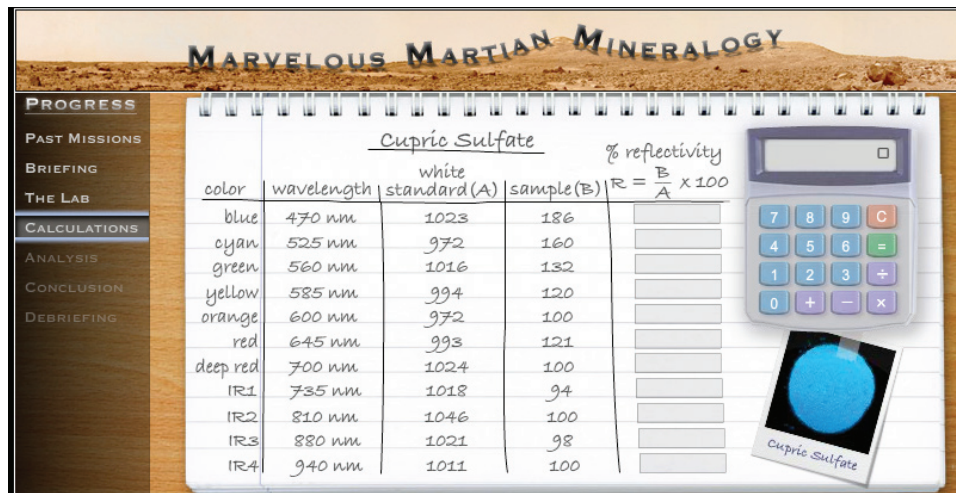
Use the tables that follow to record your data. Record the White Standard and Sample readings during “The Lab” section of the computer lab (Figure 1).

Figure 1: The Lab



In the rightmost column of the tables that follow, calculate Percent Reflectivity (%Reflectivity) during the “Calculations” section of the computer lab (Figure 2).

Figure 2: Calculations



The %Reflectivity tells you how bright the sample is compared to the white standard at each wavelength. For example, if you get a 60% for %Reflectivity, the sample is 60% as reflective as the white standard at that wavelength. The equations for Percent Reflectivity are:

$$\begin{aligned} \text{White Standard} &= A \\ \text{Sample} &= B \\ \text{Percent Reflectivity} &= \%R \\ \%R &= (B/A) \times 100 \end{aligned}$$

Name(s):

Sample name:

Color	Wavelength (nanometers, nm)	White Standard Reading (A)	Sample Reading (B)	%Reflectivity (R)
Blue	470			
Cyan	525			
Green	560			
Yellow	585			
Orange	600			
Red	645			
Deep Red	700			
IR 1	735			
IR 2	810			
IR 3	880			
IR 4	940			

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Mars Soil

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