Astronomy Ranking Task: The Electromagnetic (EM) Spectrum

Exercise #1

Description: The figure below shows the electromagnetic spectrum. Regions of the spectrum are labeled, as are wavelengths and frequencies.

A Gamma rays	
B X rays	
C Ultraviolet Visible D	
E Infrared Microwave	
Frequency (Hertz)	
	0 ³
Wavelength (meters) 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	-

A. Ranking instructions: Rank the wavelengths of the regions of the EM spectrum.

 Ranking Order: Longest
 1
 2
 3
 4
 5
 6
 7
 Shortest

Or, all regions of the EM spectrum have the same wavelength. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the frequencies of the regions of the EM spectrum. Ranking Order: Highest 1 _____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ Lowest Or, all regions of the EM spectrum have the same frequency. _____ (indicate with a check mark) **Carefully explain** your reasoning for ranking this way: **C.** Ranking instructions: Rank the energies of the regions of the EM spectrum. Ranking Order: Highest 1 _____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ Lowest Or, all regions of the EM spectrum have the same energy. _____ (indicate with a check mark) **Carefully explain** your reasoning for ranking this way: **D. Ranking instructions:** Rank the speeds of the regions of the EM spectrum. Ranking Order: Fastest 1 ____ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ Slowest Or, all regions of the EM spectrum travel at the same speed. _____ (indicate with a check mark) **Carefully explain** your reasoning for ranking this way: