

Astronomy Ranking Task: The Electromagnetic (EM) Spectrum

Exercise #3

Description: Listed below are the names of some of the regions of the electromagnetic spectrum with examples of typical values for λ .

	Region of EM spectrum	A Typical λ (m)
A.	microwaves	1×10^{-2}
B.	UV photons	50×10^{-9}
C.	radio waves	1×10^3
D.	visible light	5500×10^{-10}
E.	infrared light	50×10^{-6}

A. Ranking instructions: Rank the speeds of these regions of the EM spectrum.

Ranking Order: Fastest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Slowest

Or, all these regions of the EM spectrum travel at the same speed. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the energies of these regions of the EM spectrum.

Ranking Order: Highest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Lowest

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

Carefully explain your reasoning for ranking this way:

C. Ranking instructions: Rank the frequencies of these regions of the EM spectrum.

Ranking Order: Highest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Lowest

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

Carefully explain your reasoning for ranking this way:

D. Ranking instructions: Rank the wavelengths of these regions of the EM spectrum.

Ranking Order: Shortest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Longest

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

Carefully explain your reasoning for ranking this way:
