

Astronomy Ranking Task: Nuclear Physics

Exercise #1

Description: The following table has some information for three neutral atoms on the periodic table, labeled X, Y, and Z

ranking letter	X	Y	Z
element symbol	B		
proton number		9	
neutron number		10	
electron number			18
mass number	11		40

A. Ranking instructions: Rank the numbers of protons in each atom.

Ranking Order: Least 1 _____ 2 _____ 3 _____ Most

Or, all of the atoms have the same number of protons. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the numbers of neutrons in each atom.

Ranking Order: Least 1 _____ 2 _____ 3 _____ Most

Or, all of the atoms have the same number of neutrons. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

C. Ranking instructions: Rank the numbers of electrons in each atom.

Ranking Order: Least 1 _____ 2 _____ 3 _____ Most

Or, all of the atoms have the same number of electrons. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

D. Ranking instructions: Rank the mass numbers of each atom.

Ranking Order: Least 1 _____ 2 _____ 3 _____ Most

Carefully explain your reasoning for ranking this way:
