Name: _____ ***Periodic Puzzler Quiz***

Using the clues below, place each element in its proper location on the martian periodic table. Remember the this table follows the same patterns and trends as the periodic table of elements you have come to know and love.

1. Ψ is an alkali metal.
2. element ∇ is the most reactive non-metal and has 7 valence electrons.
3. @ has 5 valence electrons.
4. > has 2 occupied PEL's and needs 2 electrons to fill its valence shell.
5. J is the lightest of all the elements.
6. element α has 14 protons in its nucleus
7. element Δ has 2 principal energy levels and 5 valence electrons.
8. all of the following have 3 shells and the following number of valence electrons. $ has 1, * has 2, Ω has 3, α has 4, β has 5 and☺ has 7.
9. element ⊗ is the most reactive metal and has 1 valence electron.
10. σ has 4 principal energy levels with 1 valence electron.
11. elements ♥,♦,♠ and ♣ are inert gases,♠ is the heaviest,♦has 2 principal energy levels and ♥ has the smallest atomic radius in the family.
12. group 13 contains &,Σ,Ω and □. (elements in this family are listed in order ofincreasing ionization energy.)
13. element Ξ is a halogen in the liquid phase.
14. % is the heaviest element on the martian periodic table.
15. ⇐ has 5 occupied pel's and is an alkaline earth metal.
16. ⇒ is a period 4 non metal that usually forms a $^{-}$2 ion.
17. √ has a valence shell of 2 and is an element that forms a +2 ion.
18. ? has 4 valence electrons and has the highest electronegativity in its family of α,% and Φ
19. # is a metal that will lose 2 electrons when bonding.
20. + has similar properties to ⇒ and >

1	2		13	14	15	16	17	18
J								♥
Ψ	√		□	?	Δ	>	∇	♦
$	*	Transition elements	Ω	α	β	+	☺	♣
σ	#		Σ	Φ	@	⇒	Ξ	♠
⊗	⇐		&	%				