

Fictitious symbols are used for the first 18 elements in the periodic table. Use the clues below to write the fictitious symbol in the appropriate spot on the periodic table provided. Symbols for real elements **do not** represent those elements. **HINT:** You do not have to complete each clue in order.

1						18		
	2		13	14	15	16	17	

- Clue 1 U and J are alkali metals. J has more energy levels.
- Clue 2 T has 4 valence electrons on the 3rd energy level.
- Clue 3 M is a metal in period 3 with 2 valence electrons.
- Clue 4 X has one proton in its nucleus.
- Clue 5 Q has 2 energy levels, is a nonmetal, and is a solid at room temperature.
- Clue 6 L is a noble gas that doesn't have 8 valence electrons.
- Clue 7 Z and Y are members of the nitrogen family. Y is a gas at room temperature.
- Clue 8 D has an ending electron distribution of s^2p^5 . R has an ending electron distribution of s^2 .
- Clue 9 G has 6 valence electrons.
- Clue 10 V and W have full outer energy levels. V has 3 energy levels.
- Clue 11 A atoms have 3 valence electrons and E atoms have 6 valence electrons. Both are in the second period.
- Clue 12 K has one fewer total electrons than V.
- Clue 13 I has 3 valence electrons on the third energy level.

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- Clue 1 **Lg** has 5 valence electrons on the second period.
- Clue 2 **Eg** atoms have 12 protons in the nucleus.
- Clue 3 **Qp** and **Ju** are halogens. **Ju** has fewer energy levels.
- Clue 4 **Ke** is a member of the oxygen family. **Ke** is in the same period as **Lg**.
- Clue 5 **Gn** is a member of the nitrogen family.
- Clue 6 **Rm** and **Sk** have 3 valence electrons. **Rm** has more occupied energy levels than **Sk**.
- Clue 7 **Td** and **Vo** are metals in the same family. **Vo** has 2 energy levels and **Td** has 3 energy levels.
- Clue 8 **Wa** is a member of the alkaline earth metals.
- Clue 9 **Zy** has an ending electron distribution of $3p^4$. **An** has 18 total electrons.
- Clue 10 **Ms** is a nonmetal located on the side of the periodic table with all of the metals.
- Clue 11 **Bx** atoms and **Oz** atoms are stable. **Oz** atoms are heavier than **Bx** atoms.
- Clue 12 **Ds** and **Cy** are members of the carbon family. **Ds** has fewer protons than **Cy**.