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| **ELEMENT #1**   1. I am a non-metal. 2. I belong to the Halogen family. 3. I am not the largest or smallest atom in my group. 4. My first ionization energy is greater than that of iodine. 5. I am in period 4.   What element am I? Write my symbol with common ionic charge. How many valence electrons do I have? | **ELEMENT #4**   1. I am a transition metal. 2. I have the highest electron affinity in my group. 3. My electronegativity is smaller than Manganese. 4. My melting point is the greatest of the elements left.   What element am I? |
| **ELEMENT #2**   1. I am a metal. 2. I have an atomic radius larger than scandium. 3. I am an alkali metal. 4. I have the largest atomic radius in my group.   What element am I? Write my symbol with common ionic charge. How many valence electrons do I have? | **ELEMENT #5**   1. I am a main group element. 2. I am in the nitrogen family 3. I have a lower electronegativity than arsenic. 4. I am not the largest atom in my group.   What element am I? Write my symbol with common ionic charge. How many valence electrons do I have? |
| **ELEMENT #3**  1. The radius of my most common ion is smaller than my atomic radius. 2. I am not a transition metal 3. I form an ion with a 2+ charge. 4. I have lower first ionization energy than calcium. 5. I have a smaller atomic radius than barium.   What element am I? Write my symbol with common ionic charge. How many valence electrons do I have? | **ELEMENT #6**  1. The radius of my most common ion is larger than my atomic radius. 2. I have 6 valence electrons. 3. I have a higher electronegativity than tellurium. 4. I am the smallest atom in my group.   What element am I? Write my symbol with common ionic charge. How many valence electrons do I have? |