Periodic Trends — Practice Worksheet

Name: _____ Date: _____

Instructions: Show your reasoning, units, electron counts, or diagrams as needed. Use a separate sheet for additional work. For numeric results, use appropriate significant figures.

1. Which element has the larger atomic radius: Na or Cl? Explain using an appropriate trend.

2. Which element has the larger atomic radius: Li or Cs? Explain using an appropriate trend.

3. Which element has the larger atomic radius: Mg or S? Explain using an appropriate trend.

4. Which element has the larger atomic radius: F or I? Explain using an appropriate trend.

5. Which element has the larger atomic radius: N or P? Explain using an appropriate trend.

6. Which element has the larger atomic radius: Na or K? Explain using an appropriate trend.

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7. Which element has the higher first ionization energy: Na or Cl? Explain using an appropriate trend.

8. Which element has the higher first ionization energy: K or Li? Explain using an appropriate trend.

9. Which element has the higher first ionization energy: Mg or S? Explain using an appropriate trend.

10. Which element has the higher first ionization energy: C or F? Explain using an appropriate trend.

11. Which element has the higher first ionization energy: Ca or Sr? Explain using an appropriate trend.

12. Which element has the higher electronegativity: P or Cl? Explain using an appropriate trend.