

## In Class 6: Radial Probability Diagrams, etc.

1. Write the electron configuration for:

Eu:

W:

Are these elements paramagnetic or diamagnetic? Explain briefly.

2. Draw representation of a  $4p_x$  orbital and its radial probability diagram. Label the angular and radial nodes and all of the axes.

3. Do the same for  $4d_{xy}$  orbital

4. Why do you fill the 3s orbital of Mg instead of the 3p orbital?