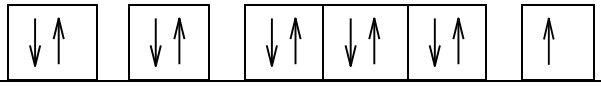
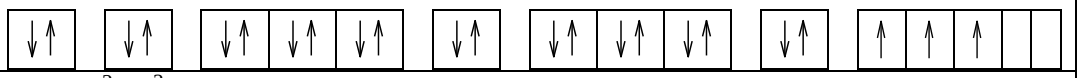
Ch8/ PowerPoint Study-1 Electronic Configuration Name:_____

Answer these questions as you are watching the videos. They are due in class.
These questions are not just for you to answer but also to prepare you for the exam.
Make sure you understand what you are writing and not just copy from the text book.

1) Name the element with the following electronic configurations.

	$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^{10}\ 4p^1$
	$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^{10}\ 4p^6\ 5s^2\ 4d^{10}\ 5p^5$
	
	
	[Ne] $3s^2\ 3p^3$
	[Ar] $4s^2\ 3d^6$

2) Answer the following questions for fluorine.
   a) How many total electrons does fluorine have? _____
   b) Write the electronic configuration of fluorine. _____
   c) How many "total" s electrons? _____
   d) Which "block" does fluorine belong to? _____
   e) Which orbital has the last electron, spdf? _____
   f) Write the box configuration for fluorine below.

3) Answer the questions below for calcium.
   a) How many total electrons does calcium have? _____
   b) Write the electronic configuration of calcium. _____
   c) How many electrons are in the last p orbital of calcium? _____
   d) Which "block" does calcium belong in the periodic table? _____
   e) Write the box configuration for calcium below.

4) Explain in a sentence what rule/principle is being violated in the following configurations. Write the correct answer also in the space provided.

Element	
a) P:	$1s^2\ 2s^2\ 2p^6\ 3s^3\ 3p^3$
b) Ti:	$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^2$
c) Si	
d) Mg