Ions Worksheet
Chemistry

Name: _____

Date: _____ Hour: _____

1) What is an ion? _____

_____

2) How is a sodium atom the same as a sodium ion? _____

_____

3) How is a sodium atom different from a sodium ion? _____

_____

4) When an ion is positive, it has _____ electrons.

5) Another name for a positive ion is a _____.

6) When an ion is negative it has _____ electrons.

7) Another name for a negative ion is a _____.

8) Why do atoms lose or gain electrons? _____

_____

9) (a) The most stable electron configuration is _____

_____

(b) Give an example of an atom with this most stable configuration: _____

10) List the protons and electrons for each particle and predict which particle is **larger**:

(a)	Rb	or	Rb^+	(circle one)
	p^+ _____ e^- _____		p^+ _____ e^- _____	
(b)	I	or	I^-	(circle one)
	p^+ _____ e^- _____		p^+ _____ e^- _____	

11) List the protons and electrons for each particle and predict which particle is **smaller**:

(a)	Al	or	Al^{3+}	(circle one)
	p^+ _____ e^- _____		p^+ _____ e^- _____	
(b)	S	or	S^{2-}	(circle one)
	p^+ _____ e^- _____		p^+ _____ e^- _____	

12) Predict the charge of the following elements:

(a) K

metal or nonmetal (circle one)

wants to lose e^- or wants to gain e^- (circle one)

positive ion or negative ion (circle one)

charge = _____

(b) Br

metal or nonmetal (circle one)

wants to lose e^- or wants to gain e^- (circle one)

positive ion or negative ion (circle one)

charge = _____

(c) Be

metal or nonmetal (circle one)

wants to lose e^- or wants to gain e^- (circle one)

positive ion or negative ion (circle one)

charge = _____

(d) N

metal or nonmetal (circle one)

wants to lose e^- or wants to gain e^- (circle one)

positive ion or negative ion (circle one)

charge = _____

(e) Ar

metal or nonmetal (circle one)

wants to lose e^- or wants to gain e^- (circle one)

positive ion or negative ion (circle one)

charge = _____