

Notes: 9/14

## Ion Formation

↳ atom that has gained or lost  $e^-$ (s)

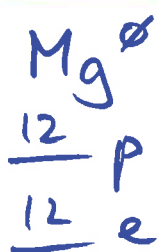
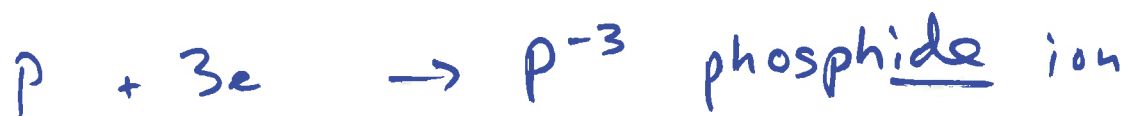
Why? to achieve lower energy

Lowest energy - noble gas configuration

- same # of  $e^-$  as closest NG

Nonmetals - gain  $e^-$  to become "anions" (- ions)

Metals - lose  $e^-$  to become "cations" (+ ions)



# Ionic Compounds - metal + NM



1 : 1 ratio in crystal NaCl



1 : 2



1 : 1



2 : 1

## Transition Metals - change charge depending on compound

