

Chemical Bonding Worksheet

9/10

Name: _____
 Date: _____

Directions: Complete each section of this worksheet. Show your work for all calculations. Circle your final answer.

100 points

Indicate if the elements in the following compounds are metals or non-metals. Describe the type of bonding that occurs in the compound.

Compound	Element 1 (metal or non-metal?)	Element 2 (metal or non-metal?)	Bond Type
NaCl	Na = metal	Cl = non-metal	ionic
NaOH	Na = metal	O = non-metal, H = non-metal	ionic
CaO	Ca = metal	O = non-metal	ionic
CaF ₂	Ca = metal	F = non-metal	ionic
MgO	Mg = metal	O = non-metal	ionic
CO ₂	C = non-metal	O = non-metal	covalent
H ₂ O	H = non-metal	O = non-metal	covalent
AlF ₃	Al = metal	F = non-metal	ionic
COCl ₂	C = non-metal	O = non-metal, Cl = non-metal	covalent
Si	Si = non-metal	Si = non-metal	covalent
SiO ₂	Si = non-metal	O = non-metal	covalent
Na ₂ S	Na = metal	S = non-metal	ionic
CaS	Ca = metal	S = non-metal	ionic
CaF ₂	Ca = metal	F = non-metal	ionic
CaO	Ca = metal	O = non-metal	ionic
CaCl ₂	Ca = metal	Cl = non-metal	ionic
CaBr ₂	Ca = metal	Br = non-metal	ionic
CaI ₂	Ca = metal	I = non-metal	ionic
CaH ₂	Ca = metal	H = non-metal	ionic
CaMg	Ca = metal, Mg = metal	Ca = metal, Mg = metal	metallic