

**Chemical Bonding Worksheet**

9/10

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

Instructions: Write and balance the chemical equation for each reaction. Indicate the type of bonding that occurs in the compound.

100 points  
 Due: \_\_\_\_\_

Indicate the type of bonding in the following compounds and balance the equation. Describe the type of bonding that occurs in the compound.

Compound	Reaction 1 (Indicate the type of bonding in the reactants)	Reaction 2 (Indicate the type of bonding in the products)	Bond Type
$\text{H}_2$	$\text{H}_2 \rightarrow \text{H}_2$	$\text{H}_2 \rightarrow \text{H}_2$	Covalent
$\text{H}_2\text{O}$	$\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$	$\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$	Covalent
$\text{H}_2\text{O}_2$	$\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}_2$	$\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}_2$	Covalent
$\text{H}_2\text{SO}_4$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_4$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_4$	Covalent
$\text{H}_2\text{SO}_3$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_3$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_3$	Covalent
$\text{H}_2\text{SO}_2$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_2$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}_2$	Covalent
$\text{H}_2\text{SO}$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}$	$\text{H}_2 + \text{S} + \text{O}_2 \rightarrow \text{H}_2\text{SO}$	Covalent
$\text{H}_2\text{S}$	$\text{H}_2 + \text{S} \rightarrow \text{H}_2\text{S}$	$\text{H}_2 + \text{S} \rightarrow \text{H}_2\text{S}$	Covalent
$\text{H}_2\text{S}_2$	$\text{H}_2 + \text{S}_2 \rightarrow \text{H}_2\text{S}_2$	$\text{H}_2 + \text{S}_2 \rightarrow \text{H}_2\text{S}_2$	Covalent
$\text{H}_2\text{S}_2\text{O}_7$	$\text{H}_2 + \text{S}_2 + \text{O}_7 \rightarrow \text{H}_2\text{S}_2\text{O}_7$	$\text{H}_2 + \text{S}_2 + \text{O}_7 \rightarrow \text{H}_2\text{S}_2\text{O}_7$	Covalent
$\text{H}_2\text{S}_2\text{O}_8$	$\text{H}_2 + \text{S}_2 + \text{O}_8 \rightarrow \text{H}_2\text{S}_2\text{O}_8$	$\text{H}_2 + \text{S}_2 + \text{O}_8 \rightarrow \text{H}_2\text{S}_2\text{O}_8$	Covalent
$\text{H}_2\text{S}_2\text{O}_5$	$\text{H}_2 + \text{S}_2 + \text{O}_5 \rightarrow \text{H}_2\text{S}_2\text{O}_5$	$\text{H}_2 + \text{S}_2 + \text{O}_5 \rightarrow \text{H}_2\text{S}_2\text{O}_5$	Covalent
$\text{H}_2\text{S}_2\text{O}_3$	$\text{H}_2 + \text{S}_2 + \text{O}_3 \rightarrow \text{H}_2\text{S}_2\text{O}_3$	$\text{H}_2 + \text{S}_2 + \text{O}_3 \rightarrow \text{H}_2\text{S}_2\text{O}_3$	Covalent
$\text{H}_2\text{S}_2\text{O}_2$	$\text{H}_2 + \text{S}_2 + \text{O}_2 \rightarrow \text{H}_2\text{S}_2\text{O}_2$	$\text{H}_2 + \text{S}_2 + \text{O}_2 \rightarrow \text{H}_2\text{S}_2\text{O}_2$	Covalent
$\text{H}_2\text{S}_2\text{O}$	$\text{H}_2 + \text{S}_2 + \text{O} \rightarrow \text{H}_2\text{S}_2\text{O}$	$\text{H}_2 + \text{S}_2 + \text{O} \rightarrow \text{H}_2\text{S}_2\text{O}$	Covalent
$\text{H}_2\text{S}$	$\text{H}_2 + \text{S} \rightarrow \text{H}_2\text{S}$	$\text{H}_2 + \text{S} \rightarrow \text{H}_2\text{S}$	Covalent
$\text{H}_2\text{S}_2$	$\text{H}_2 + \text{S}_2 \rightarrow \text{H}_2\text{S}_2$	$\text{H}_2 + \text{S}_2 \rightarrow \text{H}_2\text{S}_2$	Covalent
$\text{H}_2\text{S}_2\text{O}_7$	$\text{H}_2 + \text{S}_2 + \text{O}_7 \rightarrow \text{H}_2\text{S}_2\text{O}_7$	$\text{H}_2 + \text{S}_2 + \text{O}_7 \rightarrow \text{H}_2\text{S}_2\text{O}_7$	Covalent
$\text{H}_2\text{S}_2\text{O}_8$	$\text{H}_2 + \text{S}_2 + \text{O}_8 \rightarrow \text{H}_2\text{S}_2\text{O}_8$	$\text{H}_2 + \text{S}_2 + \text{O}_8 \rightarrow \text{H}_2\text{S}_2\text{O}_8$	Covalent
$\text{H}_2\text{S}_2\text{O}_5$	$\text{H}_2 + \text{S}_2 + \text{O}_5 \rightarrow \text{H}_2\text{S}_2\text{O}_5$	$\text{H}_2 + \text{S}_2 + \text{O}_5 \rightarrow \text{H}_2\text{S}_2\text{O}_5$	Covalent
$\text{H}_2\text{S}_2\text{O}_3$	$\text{H}_2 + \text{S}_2 + \text{O}_3 \rightarrow \text{H}_2\text{S}_2\text{O}_3$	$\text{H}_2 + \text{S}_2 + \text{O}_3 \rightarrow \text{H}_2\text{S}_2\text{O}_3$	Covalent
$\text{H}_2\text{S}_2\text{O}_2$	$\text{H}_2 + \text{S}_2 + \text{O}_2 \rightarrow \text{H}_2\text{S}_2\text{O}_2$	$\text{H}_2 + \text{S}_2 + \text{O}_2 \rightarrow \text{H}_2\text{S}_2\text{O}_2$	Covalent
$\text{H}_2\text{S}_2\text{O}$	$\text{H}_2 + \text{S}_2 + \text{O} \rightarrow \text{H}_2\text{S}_2\text{O}$	$\text{H}_2 + \text{S}_2 + \text{O} \rightarrow \text{H}_2\text{S}_2\text{O}$	Covalent