

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 4J – Writing Single Replacement Reactions w/ Polyatomic Ions

20 Points

For the following reactions, write the products of each reaction following the template provided.

Show work for ionic compound

Reaction	$\text{Ni}^{3+} + \text{HBr} \rightarrow \text{ } + \text{ }$					
$\text{A} + \text{BC} \rightarrow \text{AC} + \text{B}$						
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
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Cross Method Final Formula	
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Reaction	$\text{Ba} + \text{H}_3\text{N} \rightarrow \text{ } + \text{ }$					
$\text{A} + \text{BC} \rightarrow \text{AC} + \text{B}$						
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
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Cross Method Final Formula	
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Reaction	$\text{Na} + \text{H}_2\text{SO}_4 \rightarrow \text{ } + \text{ }$					
$\text{A} + \text{BC} \rightarrow \text{AC} + \text{B}$						
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
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Cross Method Final Formula	
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Reaction	$\text{Fe}^{2+} + \text{H}_3\text{PO}_4 \rightarrow \text{ } + \text{ }$					
$\text{A} + \text{BC} \rightarrow \text{AC} + \text{B}$						
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
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Cross Method Final Formula	
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Reaction		$\text{Ca} + \text{ZnNO}_3 \rightarrow _____ + _____$				
A	+	BC	$\rightarrow$	AC	+	B
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
Cross Method Final Formula		

Reaction		$\text{Co}^{3+} + \text{Ag}_2\text{CrO}_4 \rightarrow ___ + ___$				
A	+	BC	$\rightarrow$	AC	+	B
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
Cross Method Final Formula		

Reaction		$\text{Li} + \text{Cr}(\text{ClO}_3)_2 \rightarrow _____ + _____$				
A	+	BC	$\rightarrow$	AC	+	B
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
Cross Method Final Formula		

Reaction		$\text{Sn}^{4+} + \text{PtS}_2\text{O}_3 \rightarrow _____ + _____$				
A	+	BC	$\rightarrow$	AC	+	B
	+		$\rightarrow$		+	

	A	C
Element or Ion		

Ion Charge		
Cross Method Final Formula		