

## Stoichiometric Ratio MOLES 1

Objective: Be able to set up an ISE table and utilize the stoichiometric ratio.

For each of the following questions, calculate the ? unknown quantity.

$C_3H_7OH + 5O_2 \rightarrow 3CO_2 + 4H_2O$   
 I 5 moles  
 S ? ? ?  
 E

5	5	=	$\frac{25}{2}$
	1		

5	3	=	$15 CO_2$
	1		

$C_3H_7OH + 5O_2 \rightarrow 3CO_2 + 4H_2O$   
 I 15mol  
 S ? ? ?  
 E

15	1	=	$3 C_3H_7OH$
	5		

15	3	=	$9 CO_2$
	5		

15	4	=	$12 H_2O$
	5		

$2C_2H_2 + 5O_2 \rightarrow 4CO_2 + 2H_2O$   
 I 10  
 S ? ? ?  
 E

10	5	=	$25 O_2$
	2		

10	4	=	$20 CO_2$
	2		

10	2	=	$10 H_2O$
	2		

$2C_2H_2 + 5O_2 \rightarrow 4CO_2 + 2H_2O$   
 I 20  
 S ? ? ?  
 E

20	2	=	$8 C_2H_2$
	5		

20	4	=	$10 CO_2$
	5		

For the following 2, you are given 6moles of a single reactant. Solve for everything else like above.

$2AgNO_3 + Cu \rightarrow 2Ag + Cu(NO_3)_2$   
 I 6  
 S ? ? ?  
 E

2	2	=	$2 mol Ag$
	2		

20	2	=	$20$
	2		

$2AgNO_3 + Cu \rightarrow 2Ag + Cu(NO_3)_2$   
 I 6  
 S ? ? ?  
 E

2	2	=	$4 mol Ag$
	1		