Name:
Blk: $\qquad$ Date: $\qquad$

## An introduction to STOICHIOMETRY

Together with a partner, complete the following activities using the packages of Rockets ${ }^{\circledR}$ provided:

1. One purple Rocket ${ }^{\circledR}(\mathrm{Pu})$ reacts with one pink Rocket ${ }^{\circledR}(\mathrm{Pi})$ to form a $\mathrm{PuPi}_{2}$ compound, according to the following UNBALANCED equation:

$$
\ldots \mathrm{Pu}+\ldots \ldots \mathrm{Pi} \text { 目__ } \mathrm{PuPi}_{2}
$$

a. How many $\mathrm{PuPi}_{2}$ molecules can you form?
b. What type of a reaction does this represent?
c. Did you use all the Purple and Pink's in your packages?

If no, which ones are left over?
2. A compound composed of 1 White Rocket and 2 Green Rockets ( $\mathrm{WiGe}_{2}$ ) reacts with a compound composed of 2 Yellow Rockets ( $\mathrm{Ye}_{2}$ ) to form two different compounds as seen in this UNBALANCED equation:
$\qquad$ $W \mathrm{WiGe}_{2}+$ $\qquad$ $\mathrm{Ye}_{2}$ [? $\qquad$ $\mathrm{WiYe}_{4}+$ $\qquad$ $\mathrm{Ge}_{2}$
a. How many $\mathrm{WiYe}_{4}$ compounds can you form? How many Ge compounds?
b. What type of a reaction does this represent?
c. Did you use all the Rocket's in your package? If no, which ones are left ove
3. A compound made up of 1 Green and 1 Orange Rocket ${ }^{\circledR}$ reacts with a compound composed of 1 Purple and 2 Pink Rocket ${ }^{\circledR}$ and the following products form:
$\ldots \_\mathrm{GeO}+\ldots \mathrm{PuPi}_{2} \rightarrow \ldots \mathrm{GePi}_{2}+\ldots \mathrm{PuO}$
a. How many $\mathrm{GePi}_{2}$ molecules can you form? How many $\mathrm{PuPi}_{2}$ molecules can you form?
b. What type of a reaction does this represent?
c. Did you use all the Rocket's in your package? If no, which ones are left over?
4. Now that you have completed the above 3 activities, what can you conclude from this experience? How do the candies represent chemicals in a chemical reaction? What do you now know that you did not consider before?

