

Read Reaction Ratios



Name: _____ Date: _____

Use the material to work through each task. Show the requested response.

A balanced model reaction

$2 \text{H}_2 + \text{O}_2 \rightarrow 2 \text{H}_2\text{O}$. The coefficients give mole ratios: 2 moles of hydrogen react with 1 mole of oxygen to form 2 moles of water, assuming the reaction proceeds as modeled.

1. What is the $\text{H}_2:\text{O}_2$ mole ratio?

2. How many moles of O_2 are needed for 6 moles of H_2 ?

3. With enough oxygen, how many moles of H_2O form from 4 moles of H_2 ?

4. There are 4 moles of H_2 and 1 mole of O_2 . Which reactant limits the modeled reaction?

5. How many moles of H_2O can that mixture form?

6. Why is changing a coefficient different from changing a subscript?
