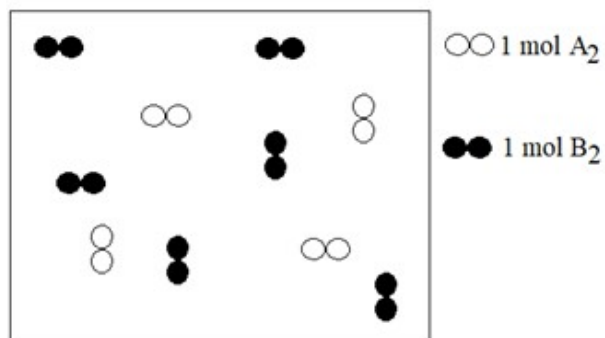


Previous Exam Problem

Consider the following container, displaying molecules of generic diatomic gases A_2 and B_2 before any chemical reaction has occurred.



After reacting, both substances are completely consumed by the chemical reaction and neither reactant is in excess. Which chemical reaction took place? Note that all reactions shown below are currently **unbalanced**.

- a. $A_2 + B_2 \rightarrow A_2B_3$ d. $A_2 + B_2 \rightarrow A_2B_5$
b. $A_2 + B_2 \rightarrow AB_3$ e. $A_2 + B_2 \rightarrow A_2B_4$
c. $A_2 + B_2 \rightarrow AB$