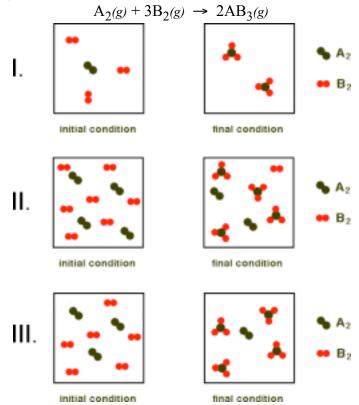
Possible clicker question for stoichiometry:

14. Which of the following changes can be described by the balanced chemical equation,



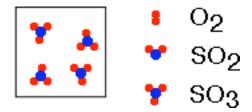
- A) I only
- B) II only
- C) I and III
- D) II and III
- E) I, II and III

Another clicker question:

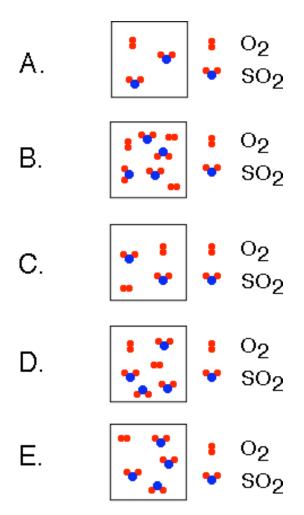
Consider the following chemical equation describing the reaction between sulfur dioxide and oxygen.

$$2\mathrm{SO}_2(g) + \mathrm{O}_2(g) \, \Rightarrow \, 2\mathrm{SO}_3(g)$$

Given the following container as representing the final condition



Which of the following containers best represents the initial conditions?

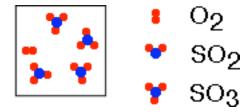


## Another variation

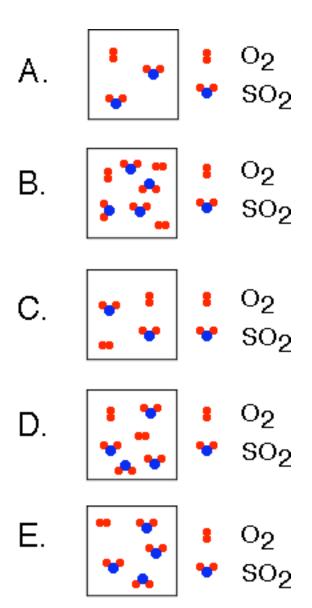
Consider the following chemical equation describing the reaction between sulfur dioxide and oxygen.

$$2\mathrm{SO}_2(g) + \mathrm{O}_2(g) \, \to \, 2\mathrm{SO}_3(g)$$

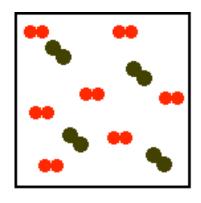
Given the following container as representing the final condition

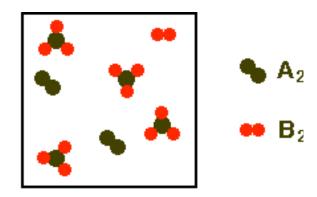


Which of the following containers best represents the initial conditions?



13. Which of the chemical equations best describes the reaction represented by the containers below? Consider the container label 'initial condition' as the reactants before any reaction has occurred, and the container labeled 'final condition' as the same container after the reaction has reached completion.





## initial condition

## final condition

$$\mathrm{A)} \qquad 4\mathrm{A}_{2}(g) + 7\mathrm{B}_{2}(g) \, \Longrightarrow \, 4\mathrm{A}\mathrm{B}_{3}(g)$$

B) 
$$4A_2(g) + 7B_2(g) \rightarrow 4AB_3(g) + 1B_2(g) + 2A_2(g)$$

C) 
$$A_2(g) + 3B_2(g) \rightarrow 2AB_3(g)$$

D) 
$$4A_2(g) + 6B_2(g) \rightarrow 4AB_3(g)$$

E) 
$$A_2(g) + B_2(g) \rightarrow AB_3(g)$$