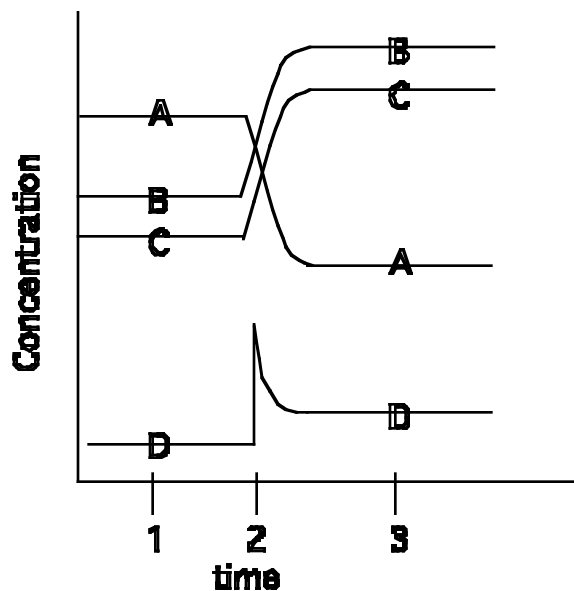


Shifting Reactions

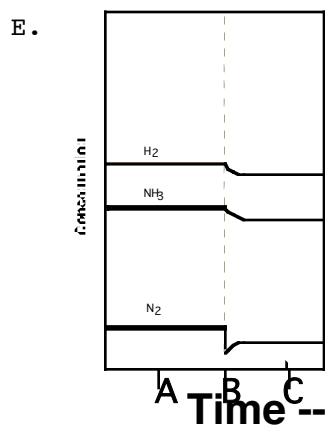
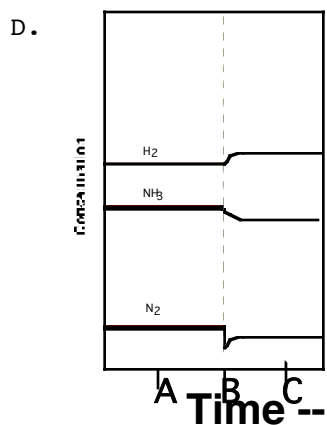
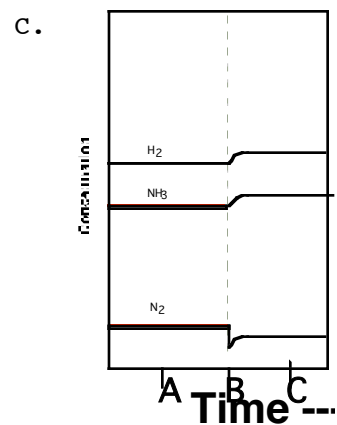
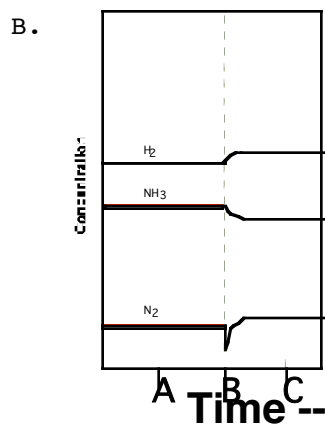
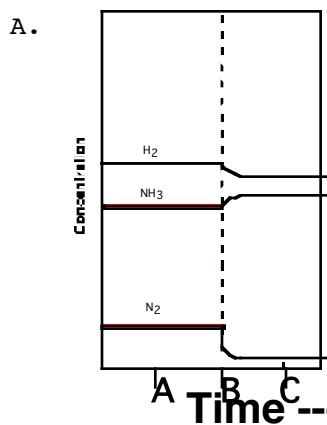
1. The following diagram represents a hypothetical chemical reaction.



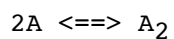
At time 2 a change takes place in the reaction. Which of the following statements about this chemical system is false?

- A. At time 3 the system is at equilibrium.
- B. At time 2 the concentration of D was increased
- C. The change at time 2 caused more C to be formed.
- D. The diagram is an illustration of the effect that changing the concentration of a compound has on a reaction at equilibrium.
- E. D and A are on opposite sides of the equation representing the reaction

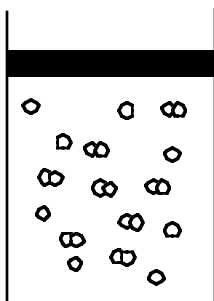
2. Which of the following diagrams best represents a sudden decrease in the concentration of N_2 at time B?



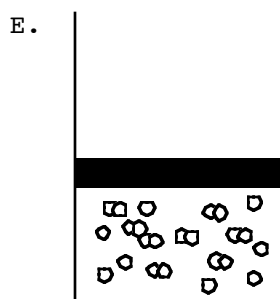
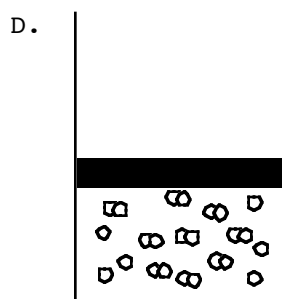
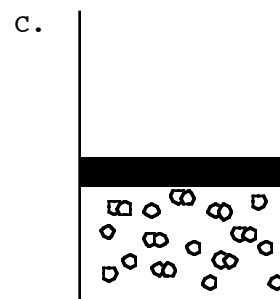
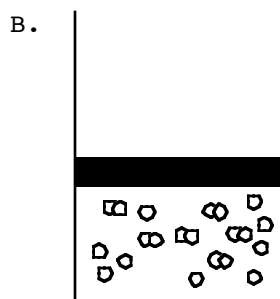
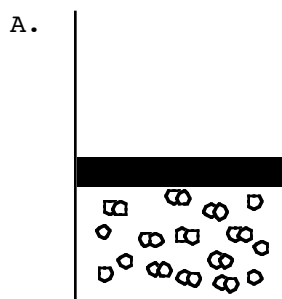
3. Consider the following reaction:



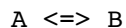
The following diagram represents this reaction at equilibrium.



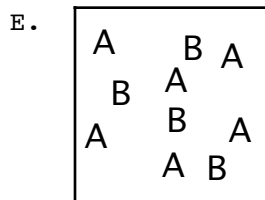
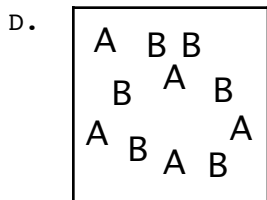
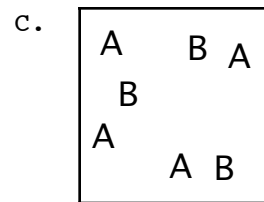
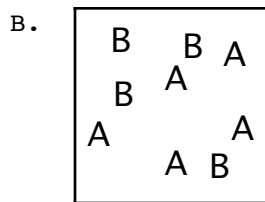
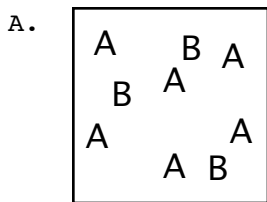
Which of the following diagrams represents the same reaction at equilibrium after the pressure of the system is doubled by reducing the volume by one half with no change in temperature?



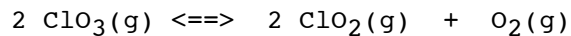
4. Consider the hypothetical exothermic reaction:



At equilibrium at 25°C, the system has 5 molecules of A and 4 molecules of B. Which diagram could represent the reaction at equilibrium at 35°C?



5. The endothermic reaction



is initially at equilibrium at 300 K in a sealed reaction vessel which has an adjustable volume. Which of the following would cause the reaction to shift to the left?

- (1) Increase the temperature.
- (2) Decrease the volume.
- (3) Addition of ClO_3 .

- A. 1 and 2
- B. only 2
- C. only 3
- D. 1 and 3
- E. 2 and 3

Answer Key for Test "Shifting", 2/19/09

No. in No. on

Q-Bank Test Correct Answer

1	2	1	E
1	3	2	D
1	6	3	D
1	7	4	A
2	1	5	A