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## Senior Chemistry SCH 4U Keg Assignment

Answer the following questions using complete problem solving format.

For the equilibrium:

$$A + B \rightarrow C \qquad K_{eq} = 0.5$$

- a) Determine all equilibrium concentrations if 5 mol of A and 4 mol of B is placed in an 8 L flask.
- b) To the equilibrium established in a), what amount of A must be added to bring the concentration of C up to 0.150 mol/L
- c) To the equilibrium established in b), what will the final concentrations become if the flask volume is reduce to  $5\ L$
- d) Draw a concentration versus time curve for the sequence of equilibrium in parts a) b) and c)