

HW 14.7: Le Châtelier's Principle: If a stress is applied to a reaction mixture *at equilibrium*, net reaction occurs in the direction that relieves the stress. (equilibrium shifts to undo stress applied to system)

$2 A (g) + B(g) \rightarrow 3 C(g) + 2 D(g)$ $\Delta H = \text{negative}$ (circle one parenthesis under which direction will equilibrium shift each letter)
hint: ΔH negative is exothermic = (+ heat, heat is product)

(a) add A rxn goes [(\rightarrow) or (\leftarrow)]

(b) remove B rxn goes [(\rightarrow) or (\leftarrow)]

(c) add C rxn goes [(\rightarrow) or (\leftarrow)]

(d) remove C rxn goes [(\rightarrow) or (\leftarrow)]

(e) higher T rxn goes [(\rightarrow) or (\leftarrow)] end Test 3 (c) & below
(higher T = add heat)

(f) higher P rxn goes [(\rightarrow) or (\leftarrow)]
(assume all reactants & products in reaction are gases) (moves to fewer moles gas)

(g) higher V rxn goes [(\rightarrow) or (\leftarrow)]
(assume all reactant & products in reaction are gases) (moves to fewer moles gas)