

Name:

Period:

Seat#:

---

**Directions:** Show all work in a way that would earn you credit on the AP Test! This is always the rule! Some answers are provided at the end in italics and underlined. If you need more space, use binder paper and staple to your worksheet.

---

A 1.00 L vessel contains, at equilibrium, 0.300 mol of  $\text{N}_2$ , 0.400 mol  $\text{H}_2$ , and 0.100 mol  $\text{NH}_3$ . If the temp is maintained constant, how many moles of  $\text{H}_2$  must be introduced into the vessel in order to double the equilibrium concentration of  $\text{NH}_3$ ? *The answer is 0.425 mol. How did I get this answer?*