

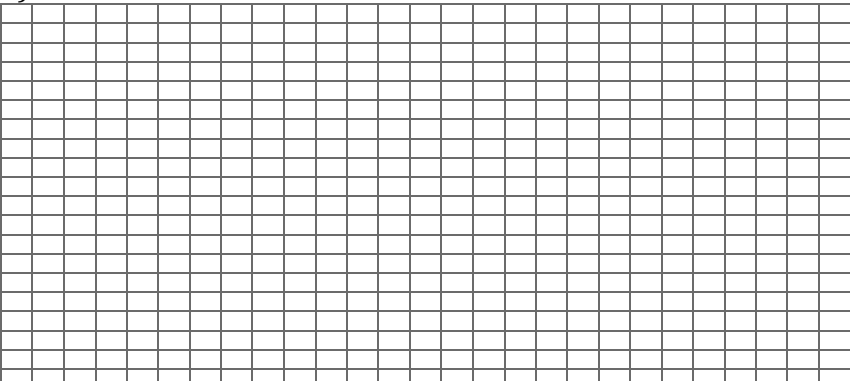
# Chemistry 12 Quiz

Name: \_\_\_\_\_

1) When hydrogen gas and nitrogen gas react to form an equilibrium with ammonia (NH<sub>3</sub>)<sub>(g)</sub>. Draw the PE diagram for this reaction AND explain how you determined the answer.

2) When Al<sub>(s)</sub> reacts with aqueous ammonium monohydrogen phosphate, the single replacement reaction produces two aqueous products that form an equilibrium.

- Write the equation
- Label the stress that occurs if you dilute the solution with water.
- In a different colour, label any shift that might occur and the changes in concentrations.
- Sketch TO SCALE a graph of the product concentrations:  
(establishing equilibrium, stress, re-establishing equilibrium)
- Draw FOUR sets of equilibrium arrows with sample numbers to indicate the reaction rate:  
(1 start of reaction, 2 equilibrium, 3 stress, 4 new equilibrium)
- Sketch the PE diagram for the reaction.
- Describe what affect adding some aluminum to the equilibrium would have?

a, b, c)	
d) 	e) 1  2  3  4
f)	g)