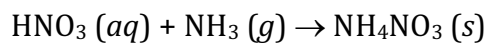


Name: _____

Ammonium nitrate, the main component of fertilizers, is produced from the reaction of nitric acid and ammonia. The chemical equation for this synthesis is given below.



Using the following table of standard enthalpies of formations at 25 °C:

1. Calculate the change in enthalpy for this process.
2. Indicate if this an exothermic or an endothermic process.

Substance	ΔH_f° (kJ/mol)
$\text{HNO}_3 (aq)$	-206.6
$\text{NH}_3 (g)$	-46.1
$\text{NH}_4\text{NO}_3 (s)$	-365.6