Kinetics Finals review Diagnostic

Consider the following two step reaction

1. NO2 + F2 🡪 NO2F + F
2. NO2 + F 🡪 NO2F

\*\*\* note, the following numbers are totally made up to help you practice drawing the diagrams. Although the diagram does look like this.\*\*\*

If the Ea of step 1 is 365 with a ∆H of 190 and the Ea of step 2 is 50 and the ∆H of the second step is -350 :

1. Draw a fully labeled reaction diagram the diagram with
   1. Activation energies for step 1 and 2
   2. ∆H for both steps
   3. Identify each step as endo or exothermic
   4. Which step is the rate determining step and why?
   5. What is the reaction intermediate? How do you know?
   6. Is there a catalyst? How do you know?
   7. What is the overall reaction?