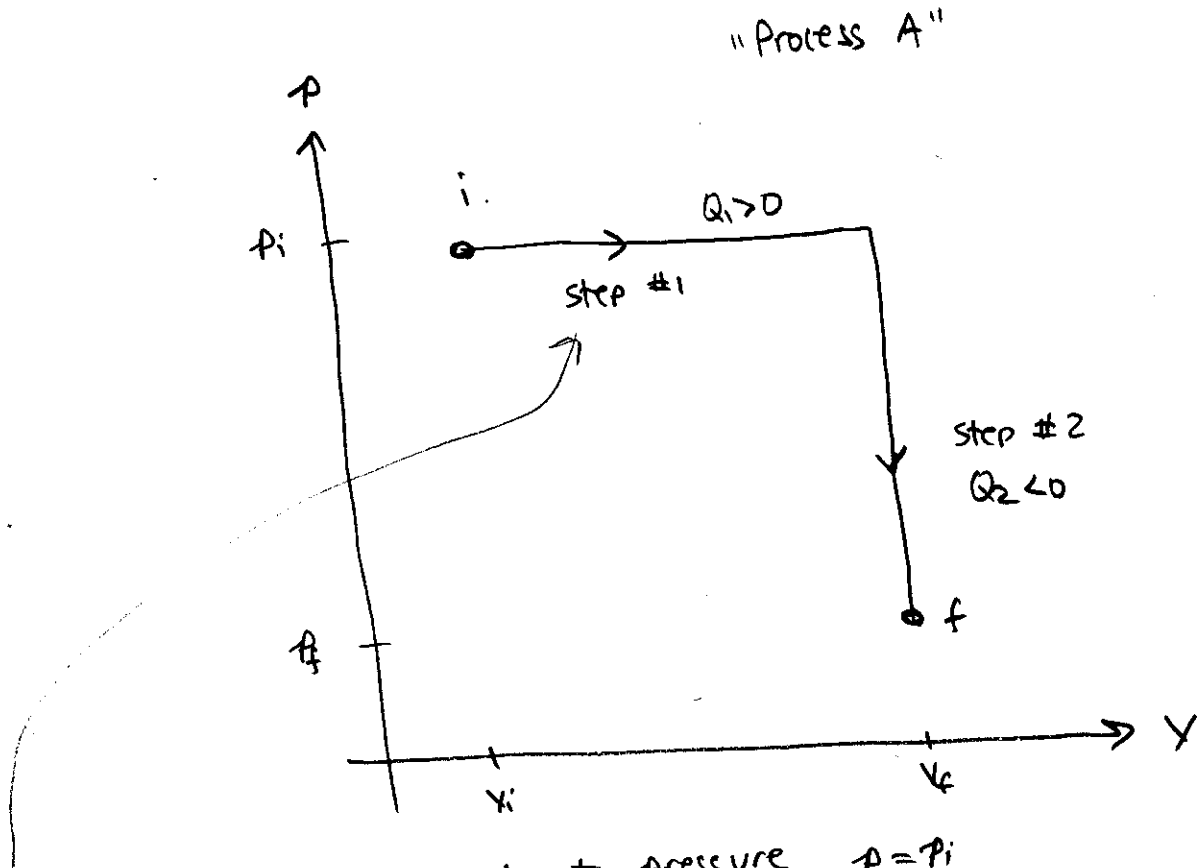


But there are other ways to drive the system from $i \rightarrow f$:



step #1 occurs at constant pressure $p = p_i$

- leave lead weight unchanged

- raise T , driving $V \rightarrow V_f$;
 This adds heat Q_1 to the system

step #2 is at constant volume $V = V_f$

- wedge the piston in place

- lower T , which drives $p \rightarrow p_f$;
 This removes heat, so $Q_2 < 0$

This process resulted in a total heat $Q_A =$

positive
 \downarrow
 $Q_1 + Q_2$ flowing into the system.
 negative
 \downarrow

What is the Work W_A for this process?