8 moles of ideal diatomic gas are used in a process that goes from $A$ to $B$ to $C . T_{A}=480 K, T_{B}=320 \mathrm{~K}$. Complete the $p-V$ diagram on the right.



Complete the charts for Process A to B.
$\begin{array}{lll}\mathrm{P} & \mathrm{V} & \mathrm{T}\end{array}$

I F I F I F
$\mathrm{U}_{\mathrm{i}}+\mathrm{Q}$ -
$\mathrm{W}=\mathrm{U}_{\mathrm{f}}$

$\qquad$
$\qquad$
$\qquad$

Complete the charts for Process B to C.
P V T
$\mathrm{U}_{\mathrm{i}}+\mathrm{Q}-\mathrm{W}=\mathrm{U}_{\mathrm{f}}$

$\qquad$
$\qquad$
$\qquad$
I F I F I F
Complete the charts for Process C to A .
P V T
$\mathrm{U}_{\mathrm{i}}+\mathrm{Q}-\mathrm{W}=\mathrm{U}_{\mathrm{f}}$


I F I F

$\qquad$
$\qquad$

What was the entropy change of the gas from $B$ to $C$ ? $\qquad$

