

pV Diagram Practice 2

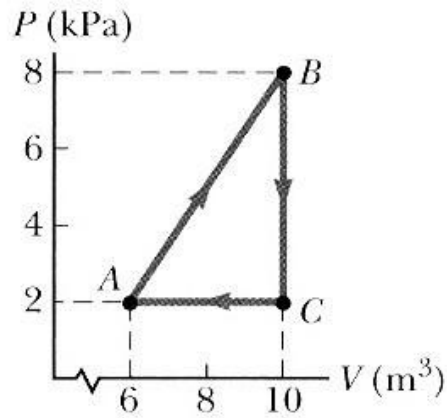


FIGURE P12.24

The above PV diagram represents thermodynamic processes performed on 1 mol of gas. Please indicate the signs of ΔT , ΔU , W and Q in the chart below:

| Path | ΔT | ΔU | W | Q |
|------|------------|------------|-----|-----|
| AB | | | | |
| BC | | | | |
| CA | | | | |

1. On the diagram, identify the isobaric process.
2. In general, how do you find the amount of work done on (or by) a gas from a PV diagram?
3. Calculate the work done on the gas in process $A \rightarrow B$. Be sure to include a sign.
4. Calculate the work done on the gas in process $B \rightarrow C$. Be sure to include a sign.
5. Calculate the work done on the gas in process $C \rightarrow A$. Be sure to include a sign.

6. Calculate the NET work done on the gas in the entire process $A \rightarrow B \rightarrow C \rightarrow A$. Be sure to include a sign.