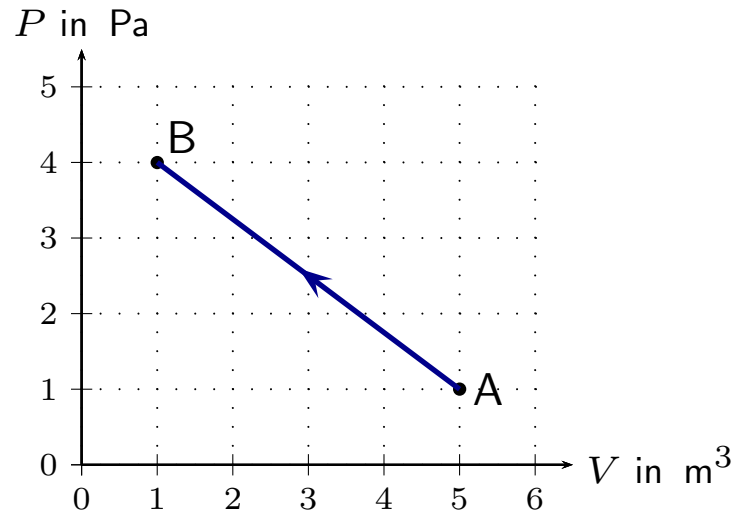


Question 1

A gas undergoes a process that takes it from state A to B as illustrated.

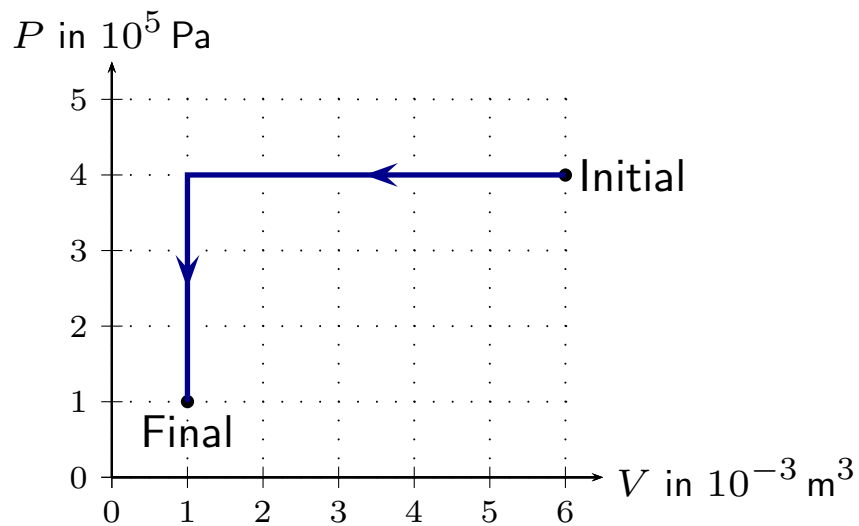


Which of the following is true during the process?

1. The temperature of the gas constantly increases.
2. The temperature of the gas constantly decreases.
3. The temperature of the gas first increases then decreases.
4. The temperature of the gas first decreases then increases.

Question 2

A gas undergoes the process that takes it from the initial to the final state as illustrated.

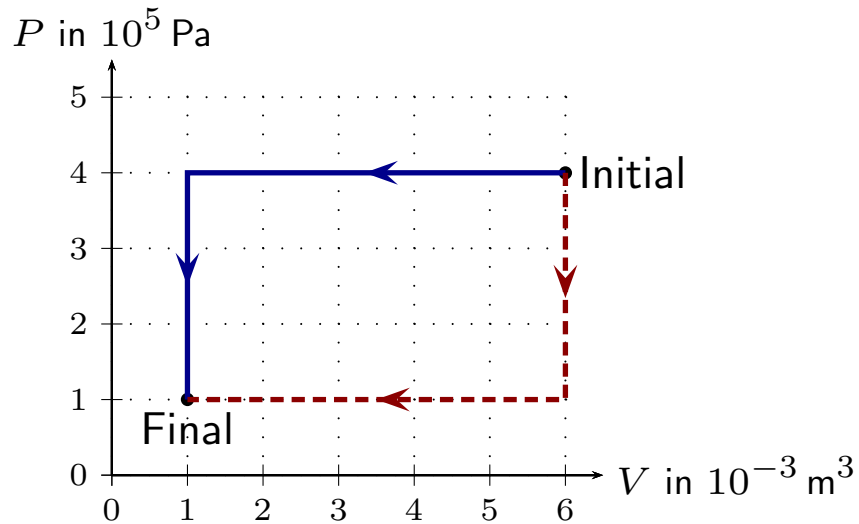


Which of the following is true for the work done on the gas during these processes?

1. $W = -2000$ J
2. $W = -1500$ J
3. $W = 1500$ J
4. $W = 2000$ J
5. $W = 2400$ J

Question 3

A gas undergoes one of the two processes that takes it from the initial to the final state as illustrated. Denote the process indicated by the solid line by A and that by the dashed line by B.



Which of the following best relates the work done on the gas during these processes?

1. $W_A = W_B$
2. $W_A < W_B$
3. $W_A > W_B$