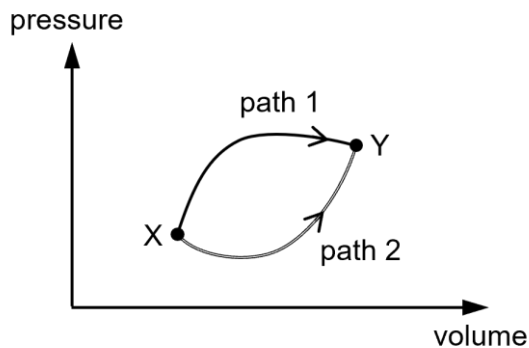11 A fixed mass of gas undergoes a change from state X to Y via two different paths as shown.

In path 1, 4.0 J of work is done by the gas and there is a thermal transfer of 10 J of energy into it.

In path 2, 2.0 J of work is done by the gas.

What is the thermal transfer of energy into the gas in path 2?

A   4.0 J   B   8.0 J   C   12 J   D   16 J