

## Example (Isometric)

7.4E7 J of heat is slowly added to a gas sample contained within a fixed volume container.

- 1) How much work is done by the gas?
- 2) What is the change in internal energy of the gas?

1) No work is done by the gas.  
Definition of an isometric process.

$$2) \quad Q = \Delta U + W = \Delta U$$

In an isometric process

$$\Delta Q = \Delta U$$

$\Rightarrow$  7.4E7 J is change in internal energy