

In a PV diagram, a system of an ideal gas goes through the process shown in Figure 3. How much heat is absorbed after the system goes through this cycle 10 times. Take $P = 1.0 \text{ Pa}$ and $V = 1.0 \text{ m}^3$.

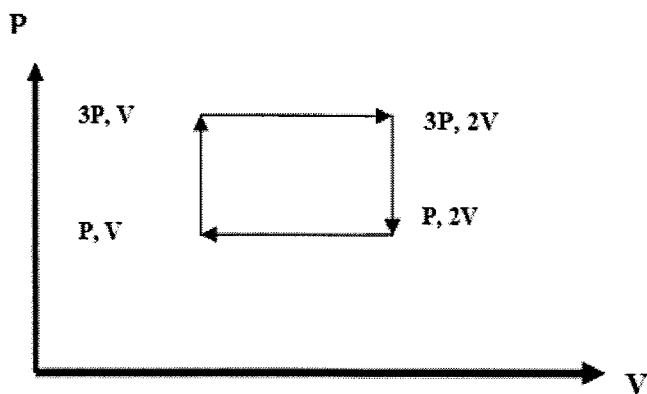


Figure 3

$$\Delta E_{\text{int}} = Q - W$$

$$0 = Q - W$$

$$Q = W = 10 (3P - P)(2V - V)$$

$$= 10 \times 2 \times P \times V$$

$$= 10 \times 2 \times 1 \times 1$$

$$= 20 \text{ J.}$$

04 Sep	11 Sep	18 Sep	25 Sep	2 Oct	9 Oct	23 Oct	30 Oct	6 Nov	13 Nov	20 Nov	27 Nov	4 Dec	11 Dec	18 Dec
Solutions of the quizzes can be found on the webpage: http://faculty.kfupm.edu.sa/phys/aljalal/phys102.htm														
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