Energy spent in magnetization-demagnetization. In two equally sized pieces of different ferromagnetic materials, a uniform magnetic field is first established, at the same intensity (H_m), and then reduced to zero ($H = 0$), during which process the operating point describes the respective paths shown in Fig.Q7.10. The net magnetic energy spent in the magnetization-demagnetization of the piece in case(a) is
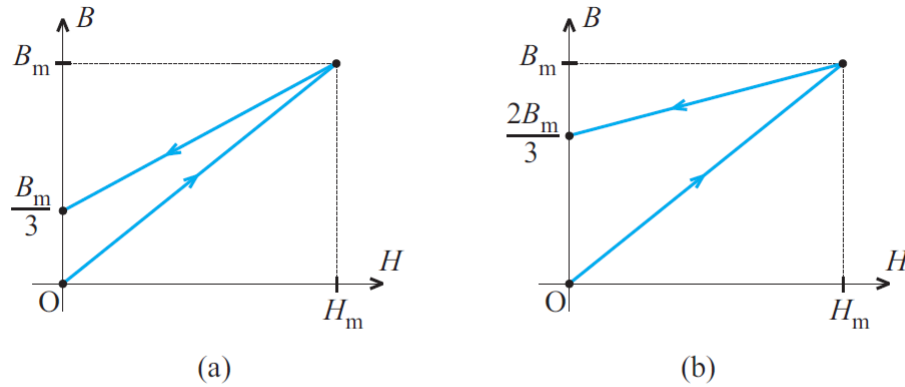

(a)   (b)

Figure Q7.10 Magnetization-demagnetization of two different ferromagnetic materials; for Question 7.32.

(A) twice
(B) three times
(C) a half of
(D) a third of
(E) the same as

that in case (b).

Solution: (C)
Answer: (C)