Quize # 2   Serial #   Name: I.D.#

The shell core shown below has a uniform cross section area of 5 x 10^{-4} m^2. If the magnetic flux density produced by I_1 is 5 tesla and the magnetic flux density flowing from point B to A is 10 tesla, the current I_2 is equal to (.....) and flux density flowing in the right leg of the core is (....).
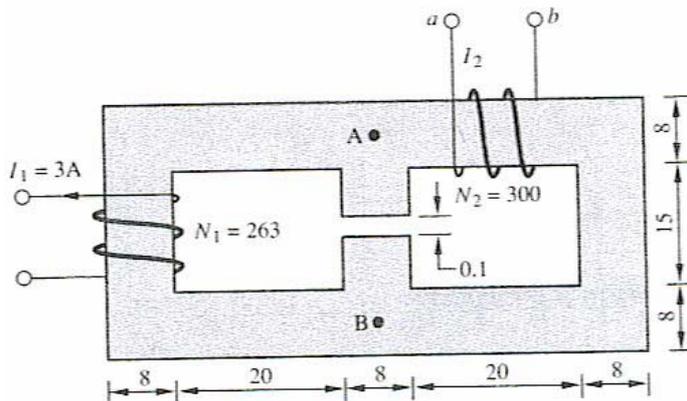
a) I_2 = 2.63 A entering terminal "a"; β_r = 5 tesla entering point "A" in the core

b) I_2 = 2.63 A entering terminal "a"; β_r = 5 tesla entering point "B" in the core

c) I_2 = 7.89 A entering terminal "b"; β_r = 15 tesla entering point "A" in the core

d) I_2 = 7.89 A entering terminal "b"; β_r = 15 tesla entering point "B" in the core