**Answer on Question #44696-Physics-Electromagnetism**
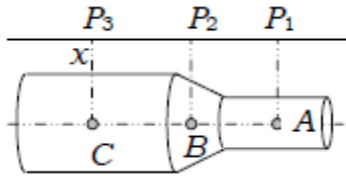
A long straight hollow conductor tube carrying a current has two section A and C of unequal cross section joined by a conical section B. 1,2 and 3 are the points on line parallel to the axis of conductor. The magnetic field at 1, 2 and 3 is equal or unequal if your answer is equal then why? Shape of conductor like a bottle

**Answer**



The magnetic field at 1, 2 and 3 is equal. To find magnetic field outside a thick conductor, the current may be assumed to flow along the axis. As points 1, 2, 3 are equidistant from the axis. So, magnetic field at these points is also equal.