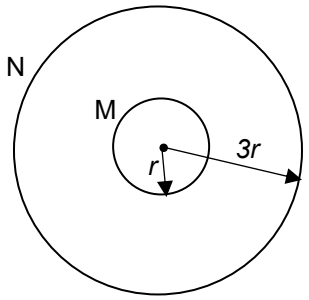
24 A flat circular coil M is mounted co-axially inside another flat circular coil N. N has three times the radius of M.



The two coils are connected in series to the same power supply. At the centre of the two coils, the magnetic field created by M is opposite in direction to the magnetic field created by N.

What is the ratio of the number of turns of coil M to the number of turns of coil N to create zero magnetic flux density at the centre?

A 1 : 3 **B** 2 : 3 **C** 3 : 1 **D** 3 : 2