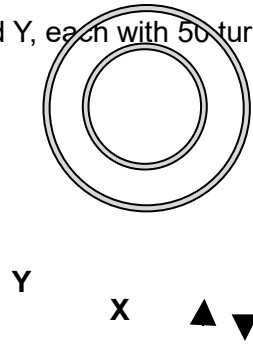


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Two circular flat coils, X and Y, each with 50 turns, are arranged as shown in the diagram.



X has radius 0.060 m and carries a current of 1.5 A in the anti-clockwise direction. Y has radius 0.12 m and carries a current of 1.0 A in the clockwise direction.

What is the magnitude and direction of the resultant magnetic flux density at the centre of the coils?

A

$417\mu_0$ out of the page

B

$417\mu_0$ into the page

C

$833\mu_0$ out of the page

D

833 μ_o into the page