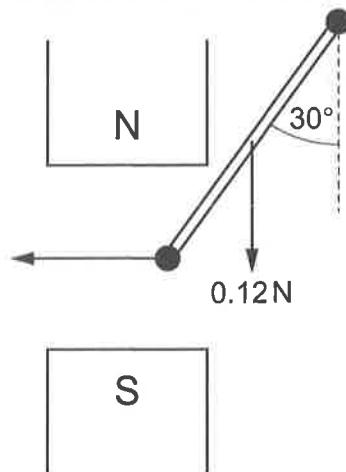24 A rigid square coil of side 60 mm has 50 turns. It hangs vertically so that it can rotate freely about one side.

When a current of 0.40 A passes through the coil, it hangs at an angle of 30° to the vertical with its lowest side in the vertical magnetic field of a magnet. The weight of the coil is 0.12 N.

What is the flux density of the field between the magnets?

A   0.029 T   B   0.058 T   C   0.087 T   D   1.4 T