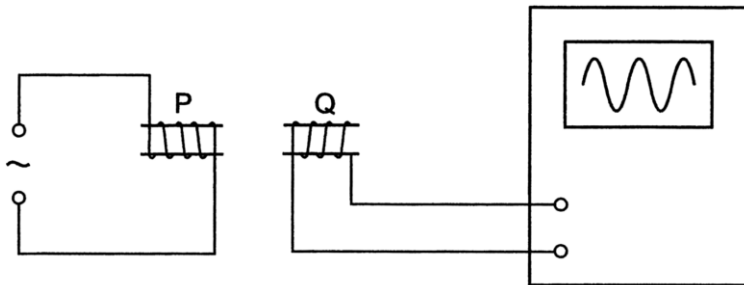


- 24** A coil P is connected to a 50 Hz alternating supply of constant peak voltage. Coil P lies close to a separate coil Q which is connected to the Y-input terminals of a cathode-ray oscilloscope. A sinusoidal trace appears on the screen of the oscilloscope.



Which change will cause the trace to have a larger amplitude while the number of cycles per unit time remains unchanged?

- A** increase the frequency of the alternating supply
- B** decrease the cross-sectional area of coil P
- C** decrease the number of turns in coil Q
- D** insert an iron core through both coils

- 25** When a varying voltage is connected across a resistor of resistance $8.0\ \Omega$, the mean power