27 A square coil of N turns is placed in a uniform magnetic field with its plane perpendicular to the field. The coil is then rotated with a frequency f to produce an alternating current.

A second square coil of the same area but of $2N$ turns is then placed in the same magnetic field and rotated with the same frequency f. Assume that wires of both coils have the same resistivity and cross sectional area.

Which of the following statements is *incorrect*?

A The peak induced e.m.f. in the second coil is doubled.
B The peak induced current in the second coil is doubled.
C The rate of change of magnetic flux is the same for both coils.
D Both coils will produce alternating current of frequency f.