4–1 Develop a table showing the speed of magnetic field rotation in AC machines of 2, 4, 6, 8, 10, 12, and 14 poles operating at frequencies of 50, 60, and 400 Hz.

Use (4-23), $f_e = \frac{n_m P}{120} \Rightarrow n_m = \frac{120 f_e}{P}$ where n_m is the magnetic field rotation speed (RPM), f_e is the electrical frequency (Hz), and P is the number of poles in the machine to build the table.

For example, for P = 4 and f_e = 50 (Hz), $n_m = \frac{120(50)}{4} = 1500$ (RPM).

# poles P	n_m (RPM)		
	f_e = 50 (Hz)	f_e = 60 (Hz)	f_e = 400 (Hz)
2	**3000**	**3600**	**24,000**
4	**1500**	**1800**	**12,000**
6	**1000**	**1200**	**8000**
8	**750**	**900**	**6000**
10	**600**	**720**	**4800**
12	**500**	**600**	**4000**
14	**428.57**	**514.29**	**3428.57**