



**FIGURE P9-1**

Planetary gearset for Problem 9-25

<sup>\*†</sup>9-25 Figure P9-1 shows a compound planetary gear train (not to scale). Table P9-1 gives data for gear numbers of teeth and input velocities. For the row(s) assigned, find the variable represented by a question mark.

\* Answers in Appendix F.

† These problems are suited to solution using *Mathcad*, *Matlab*, or *TKSolver* equation solver programs.

**TABLE P9-1 Data for Problem 9-25**

Row	$N_2$	$N_3$	$N_4$	$N_5$	$N_6$	$\omega_2$	$\omega_6$	$\omega_{\text{arm}}$
a	30	25	45	50	200	?	20	- 50
b	30	25	45	50	200	30	?	- 90
c	30	25	45	50	200	50	0	?
d	30	25	45	30	160	?	40	- 50
e	30	25	45	30	160	50	?	- 75
f	30	25	45	30	160	50	0	?