(a)   (b)

FIGURE P9-6

Problems 9-37 to 9-38 *From P. H. Hill and W. P. Rule. (1960). Mechanisms: Analysis and Design, with permission*

[*][†]9-37   Figure P9-6a shows an epicyclic train. The tooth numbers are indicated in the figure. The arm is driven *CW* at 60 rpm and gear *A* on shaft 1 is fixed to ground. Find the speed of gear *D* on shaft 2. What is the efficiency of this train if the basic gearsets have $E_0 = 0.98$?

[†]9-38   Figure P9-6b shows a differential. Gear *A* is driven *CCW* at 10 rpm and gear *B* is driven *CW* at 24 rpm. The tooth numbers are indicated in the figure. Find the speed of gear *D*.

[*] Answers in Appendix F.

[†] These problems are suited to solution using *Mathcad, Matlab,* or T*KSolver* equation solver programs.