



FIGURE P12-4

Problem 12-14

*†12-14 Figure P12-4 shows a system with two weights on a rotating shaft. $W_1 = 15 \text{ lb @ } 30^\circ$ at a 4-in radius and $W_2 = 20 \text{ lb @ } 270^\circ$ at a 6-in radius. Determine the radii and angles of the balance weights needed to dynamically balance the system. The balance weight in plane 3 weighs 15 lb and in plane 4 weighs 30 lb.

* Answers in Appendix F.

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