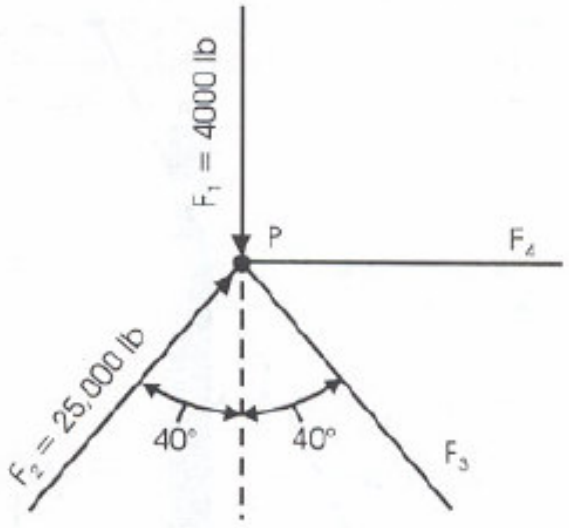
5. In Examination Figure 4 is represented a balanced system consisting of four concurrent forces F_1, F_2, F_3, and F_4. The positions of the lines of action of the forces are as shown. The line of action of F_1 is vertical, and that of F_4 is horizontal. The diagram also includes the magnitudes of the forces F_1 and F_2 and the directions of these two forces along their lines of action. The magnitude of the force F_3 and its direction along its line of action are

A. 19,780 lb away from *P*.
B. 19,780 lb toward *P*.
C. 30,200 lb away from *P*.
D. 30,200 lb toward *P*.



Examination Figure 4

In Examination Figure 4, the magnitude of the force F_4 and its direction along its line of action are

A. 24,400 lb toward *P*.
B. 24,400 lb away from *P*.
C. 28,800 lb toward *P*.
D. 28,800 lb away from *P*.