

**Homework Problem H8.B**

**Given:** The plate AB has a weight of  $W$ . Force  $F$  is applied to maintain equilibrium.

**Find:**

- Determine the magnitude of  $F$  and express it as a vector.
- Determine the reactions at A and B and express them as vectors.

Use the following parameters in your work:  $W = 500$  lb,  $d = 5$  ft,  $b = 3$  ft and  $\theta = 30^\circ$ .

