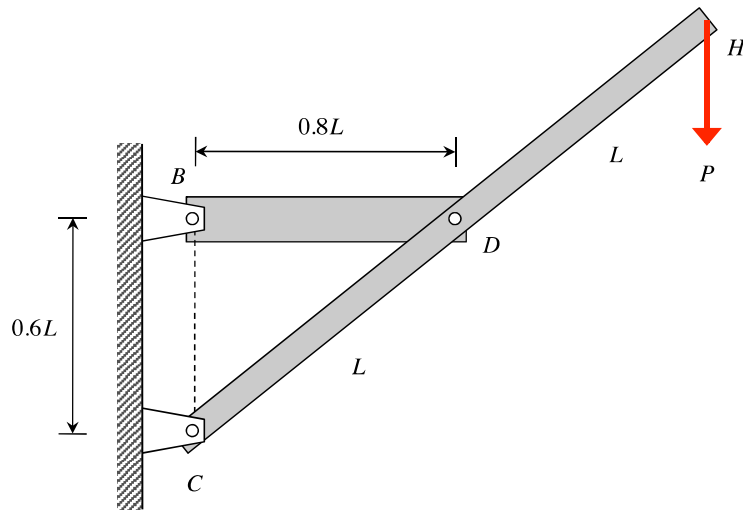**Homework H30.A**

Given: Consider the frame structure shown below that is supporting a load of P at end H of member CH. Member BD has a known cross-sectional area of A.

Find: Determine the stress in member BD.

For this problem, use the following parameters: $P = 12$ kN, $L = 0.6$ m and $A = 400$ mm^2.

Given: The L-shaped stand is pinned to ground at B. A person having a weight of W is positioned near end A of the stand. The person is supporting herself and the stand through a cable-pulley system as shown. Consider the weight of the stand to be negligible compared to the weight of the person, and consider the pulleys to be ideal. The cable has a diameter of d.

Find: Determine the stress in the cable.

For this problem, use the following parameters: $W = 160$ lb, $h = 5$ ft, $a = 3$ ft, $c = 1$ ft, $e = 0.4$ ft and $d = 0.50$ in.