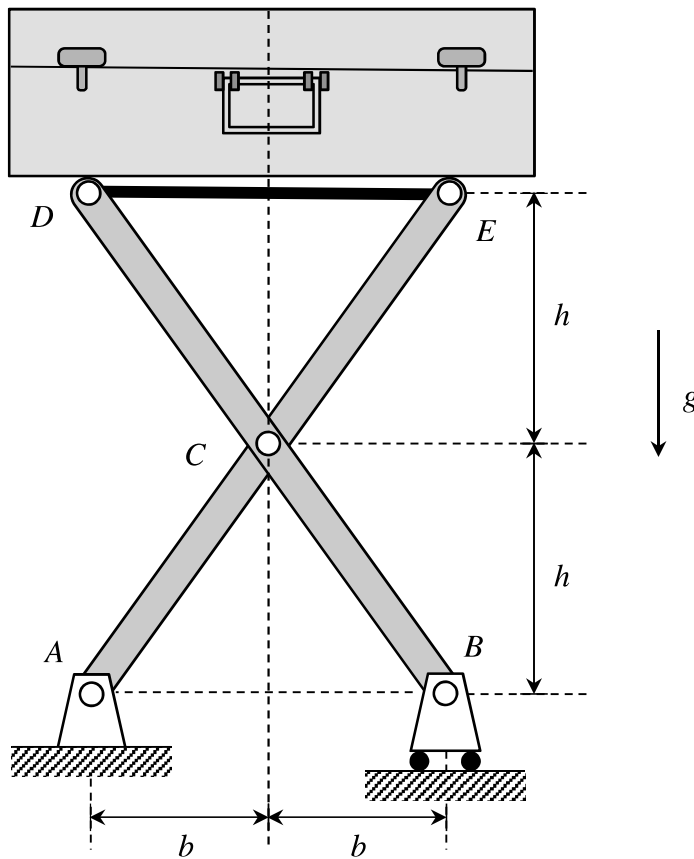


Homework H24.A

Given: A hotel luggage rack is made up of members AE and BD that are pinned together at joint C. A strap connects ends D and E of the rack. The rack supports a piece of luggage that weighs W . Assume that the weights of the members in the rack are negligible compared to the weight of the luggage.

Find: Determine the load carried by strap DE. Also, determine the force exerted by member AE on member BD at joint C, writing your answer as a vector.

For this problem, use the following parameters: $b = 0.18$ m, $h = 0.24$ m and $W = 260$ N.



Homework H24.B

Given: A structure is made up of members BD and AC, as shown below. A force P is applied at end D of member BD.

Find: Determine the reactions acting on the structure at A and B. Write your answers as vectors and in terms of the applied force P .

