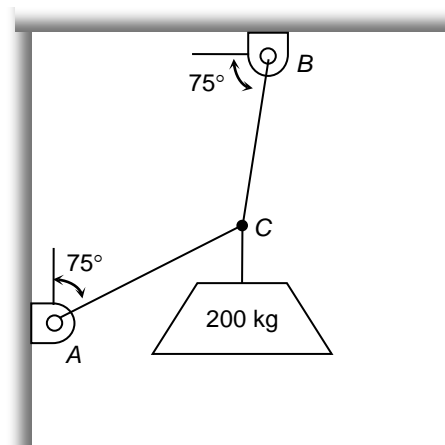


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### Example

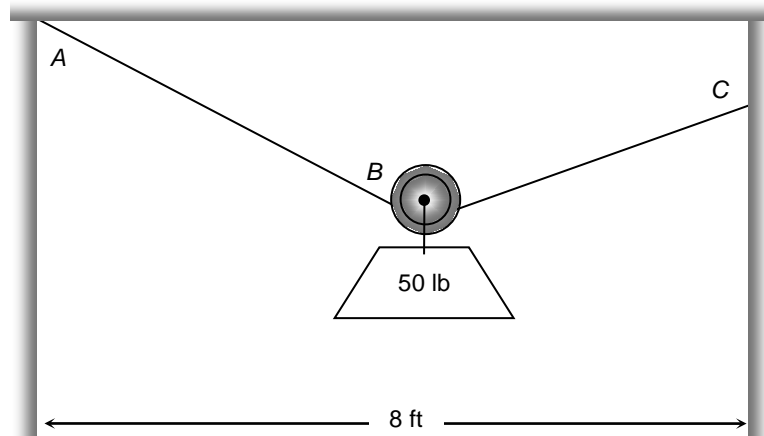
A 200-kg mass is suspended from two light, inextensible cables tied together as shown. Find the tension in cable  $AC$  and  $BC$ .



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**Example**

A light inextensible cable of total length 10 ft is stretched between two walls 8 ft apart. A 50-lb weight is suspended from a massless, frictionless pulley on the cable. Find the tension in the cable.



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### Example

Two smooth steel pipes are stacked in a box. The masses and diameters of pipe  $A$  and  $B$  are,  $m_A = 5$  kg,  $m_B = 20$  kg,  $D_A = 100$  mm and  $D_B = 200$  mm, respectively. If the distance between the walls is  $b = 250$  mm, find

- (a) the magnitude of the two forces exerted on pipe  $A$ , and
- (b) the force the bottom of the box exerts on pipe  $B$ .

