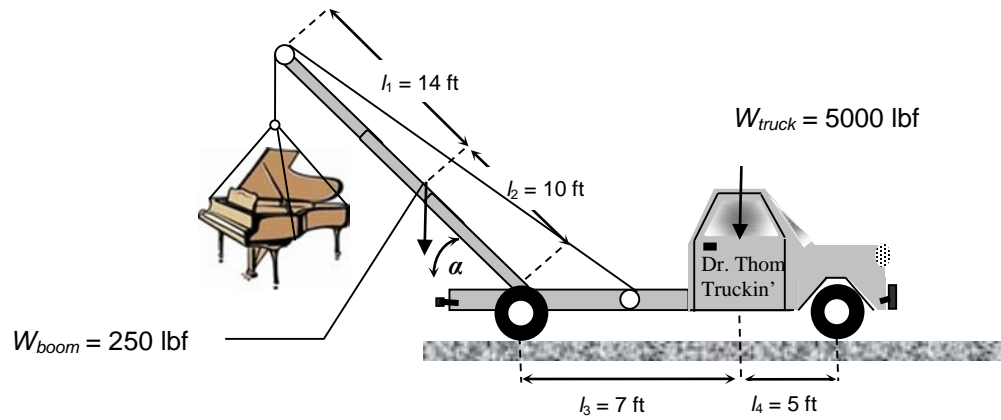


Example

A truck-mounted crane is used to lift a grand piano which will be dropped on a cartoon character's head. The weight of the piano is 750 lbf. The angle the boom makes the truck is $\alpha = 40^\circ$. Other dimensions and the weights of the truck and boom are given in the figure. For a stationary truck, determine the reactions at the front and rear wheels.



Example

A 6-ft board is placed in a truck with one end resting against a block secured to the floor and the other leaning against a smooth vertical partition. Determine the maximum allowable acceleration of the truck if the board is to remain in the position shown.

