

In Newton's Physics overall weight cannot exceed sum of partial weights. I guess 175 lbs is a misprint of 75 lbs.

Task:

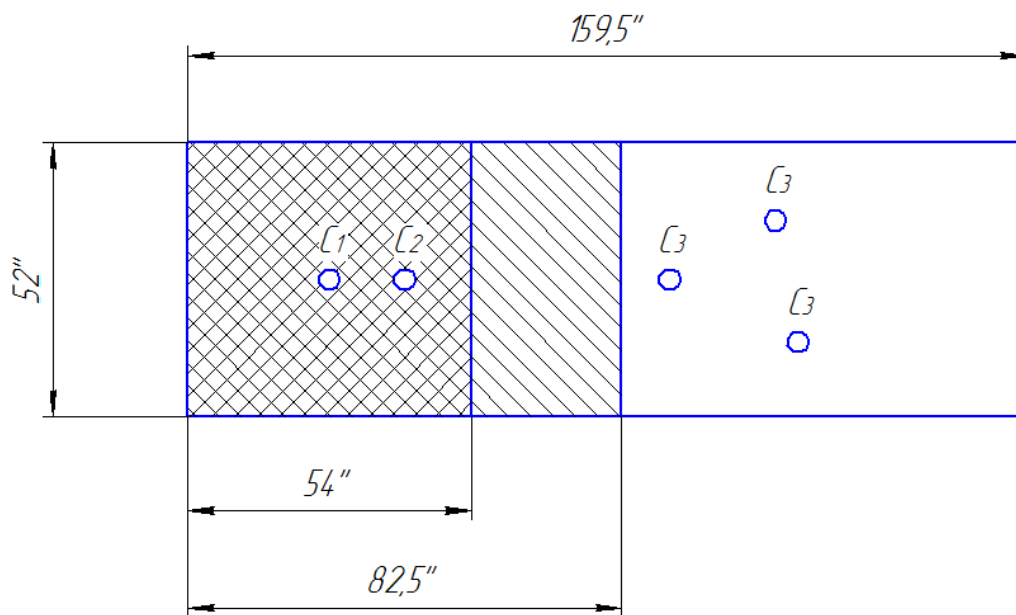
Calculate the center of mass. The overall length is 159.5" and width is 52", overall weight is 90 lbs with a weight of 75 lbs 54" from the left and 80 lbs 82.5" from left.

Solution:

$$x_c = \frac{\sum_i x_i m_i}{\sum_i m_i}$$

$$y_c = \frac{\sum_i y_i m_i}{\sum_i m_i}$$

$$\sum_i m_i = 90 \text{ lbs}$$



Since C_3 is undetermined, the center of mass of the whole object is undetermined

Answer:

The center of mass of the whole object is undetermined