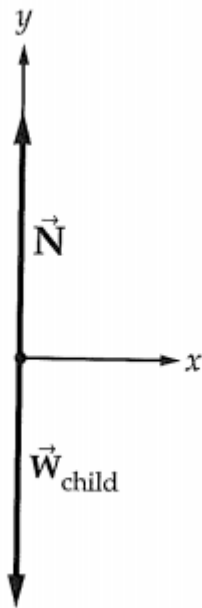


Answer on Question #56443-Physics-Other

A 9.3 kg child sits on a 3.7 kg chair her feet do not touch the ground how do i draw a free-body diagram for the child and the normal force exerted by the chair on the child

Solution



\vec{N} is the normal force exerted by the chair on the child, \vec{W}_{child} is the weight of the child.

The normal force exerted by the chair on the child is

$$N = W_{child} = m_{child}g = 9.3 \text{ kg} \cdot 9.8 \frac{\text{m}}{\text{s}^2} = 91 \text{ N}.$$

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