Problem Statement

Two blocks (m_1=5 kg, m_2=2.5 kg) are in contact on a frictionless table. A constant horizontal force of magnitude F_H=3 N is applied to the larger block. Find the magnitude of the force, F, exerted on the larger block by the smaller block.

Qualitative Analysis

- Draw a picture
- Give names to all known and unknown numerical quantities
- Make reasonable physical assumptions
- Try to make predictions about the solution

Planning/Decision Making

- What physics principle applies here (or principles apply in different parts of the problem if you must divide the problem into sub-problems)?
- Choose the systems that may be helpful in solving for the unknown (e.g., a single block or all the blocks together etc.).
- Draw a free-body diagram if helpful for each system you chose.

Implementation

Assessment and Reflection

- Does the solution have the right dimensions?
- Does the solution agree with your qualitative assessment?