

**Challenge Problem 6**

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A 4-kg block rests on top of a 5-kg block, which rests on a frictionless table. The coefficient of friction between the two blocks is such that the blocks start to slip when the horizontal force  $F$  applied to the lower block is 27 N. Suppose that a horizontal force is now applied only to the upper block, what is the maximum value of this force for the blocks to slide on the table without slipping relative to each other?

