Force Problems II

key

NAME:

1. Shiva is pulling Suki, who is sitting in a wagon. Shiva is pulling with a force of 250 N. Suki and the wagon have a combined mass of 75 kg. If there is also a frictional force of magnitude 100 N acting on Suki and the wagon, what is Suki's acceleration?





5. A wooden block of mass 0.35 kg is accelerating at 2.2 m/s² across a lab table because you are pulling it. There is 0.9 N of friction acting on the block. With how much force are you pulling the block?

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6. Faisal is pushing a 150 kg box to the right with a force of 300 N. At the same time, Meera is pulling the box to the right with a force of 400 N. If somehow there was no friction, what is the acceleration of the box?



Answers:	1) 2 m/s²	2) (–)250 N	3) 10,500 N	4) (–)625 N	5) 1.67 N
6) 4.67 m/s²	7) 1.33 m/s2				

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