

Forces Check

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1. Conrad is pushing a 40kg frictionless sled North with 300N. Kevin is pushing the same sled West with 600N.
- Draw a free body diagram for the sled

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- Calculate the net force

2

- Calculate the acceleration

2

2. A 15kg box is on a table
- Draw a free body diagram of **all** the forces on the box if the box is at rest

2

- Draw the free body diagram if I push the box along the table at a constant velocity and push with 30N

2

- What is the value for the force of friction in part (b)?

2

- What would be the acceleration of the box if there was no friction in part (b)?

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