**Unit 5 - Activity 2**

**Elevator Simulation**

In this simulation a 50-kg person stands in an elevator. This simulation is meant to illustrate the forces acting on the person under various circumstances. When the elevator does accelerate, it does so at a rate of 2.0 m/s2.

Open the simulation here: <https://tinyurl.com/yctn39cr>. For each of the four cases listed, determine what the gravitational force and the normal force acting on the person will be. Then input those into the simulation and see whether or not the person moves with the elevator.

1. When the elevator is at rest.

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1. When the elevator is both moving and accelerating upward.

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|  |  | = |  |

1. When the elevator is moving upward at a constant speed.

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| --- | --- | --- | --- |
|  |  | = |  |

1. When the elevator is moving upward and accelerating down.

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|  |  | = |  |