Task #1

Write down a few words or equations to explain each of Newton's Laws of Motion.

Task #2

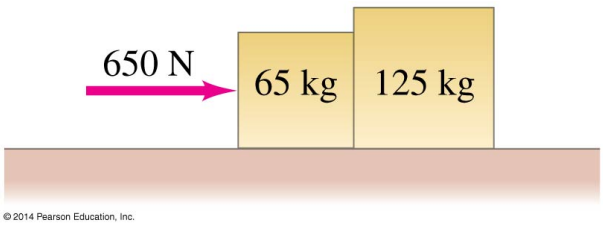
You ($m = 46$ kg) are standing on a an elevator on the top floor of a building. The elevator begins to go down towards the ground floor and does so by accelerating downward at 2.7 m/s^2. What is the normal force acting on you?

Solution: 326.6 N

Task #3

Two crates of mass 65 kg and 125 kg are in contact and at rest on a horizontal frictionless surface. A 650-N force is exerted on 65-kg crate. Calculate (a) the acceleration of the system and (b) the force that each crate exerts on the other.

Solution: (a) 3.42 m/s^2 (b) 427.5 N (c) 3.42 m/s^2 and 22.3 N



Based on chapter 4, problem 49, in Giancolli *Physics: Principles with Application*, 7th ed.