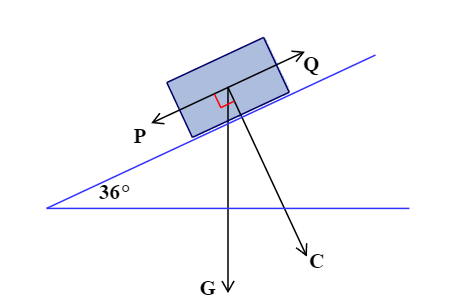
SI Week 12

1. Find the asked for forces in the problems below
   1. A crate in on a ramp that is at a 36° incline to the horizontal. The force C the crate exerts against the ramp has a magnitude of 690 N. Find the magnitude of Q required to prevent the crate from sliding down the ramp, and the weight of the crate.
   2. A cart weighing 67.4 pounds is parked on a hill at a 14° incline. Find the force stopping the cart from rolling down the hill, and the force that the cart places on the hill perpendicularly. (There are 4.45 Newtons in 1 pound).
   3. If I am mowing my yard , while pushing the mower at a downwards angle of 71° with a force of 30N, how much work did I do after pushing the lawn mower 14 meters?
2. Solve the following problems involving polar coordinates
   1. Find the rectangular coordinates for the polar coordinates (
   2. Find the rectangular coordinates for the polar coordinates (
   3. Convert the equation to polar form, then solve the found equation for r.
   4. Convert the equation to polar form