

SIR ISAAC NEWTON'S TEN COMMANDMENTS

as Recorded by His Servant, Dr. Itai Seggev

1. Thou shalt draw thy free-body diagram for each object in the problem.
2. Thou shalt pick a sensible coordinate system.
3. Thou shalt write down Newton's second law in components and, if necessary, the torque equation ($\sum \tau = 0$ or $\sum \tau = I\alpha$) for each object in the problem.
4. Remember thy sign conventions to keep your equations consistent.
5. Honor thy Professor and thy Grader.
6. If thou hast more unknowns than equations, thou shalt look for additional relationships from kinematics or geometry.
7. Thou shalt identify the desired quantity and solve for it symbolically.
8. Thou shalt plug in the numbers at the end.
9. Thou shalt include units with every number.
10. Thou shalt gaze upon thy final answer to determine if it is at all reasonable. If it is not, thou shalt repeat this process.

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