

# Ten Guides to Learning Mechanics

(King James Version)

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1. Thou shalt look back even unto thy youth and remember thy prior basic mathematics and other specified prerequisites.
2. Thou shalt learn the basics from the *Speaking Teacher* in thy class, as well as the *Silent Teacher* on the pages of thy books and the Internet.
3. Thou shalt distinguish *weight* (in N or lb) from *mass* (in kg or slug) in mechanics, and apply  $W = mg$  as needed.
4. Thou shalt first master the fundamental concepts and principles, then double check each step before putting thy heavy foot down on the next.
5. Thou shalt identify all forces and moments acting on a body by drawing a good free-body diagram (*FBD*).
6. Thou shalt ignore the teachings of doing all thy work without sketches or jotting down relevant equations.
7. Thou shalt read thy problem carefully, and then solve it using right procedure.
8. Thou shalt look it up when thou knowest not; and if thy search still eludeth thee, thou shalt ask thy Teacher, thy TA, or others.
9. Thou shalt use “common sense” to check thine answers, else thou wilt have compressive forces in ropes and even fathers younger than sons.
10. Thou shalt learn, read, write, listen, and speak correctly in the language of mechanics, and verily *A*’s or *B*’s shall follow thee unto the end of the course and even unto graduation.