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making improvements along the way as we learn from failure and uncover new design possibilities to arrive at great solutions learning how to use a structured problem solving process will help you to be more organized and support your future courses also it will train your brain how to approach problems 1 define the problem the engineering design process starts when you ask the following questions about problems that you observe what is the problem or need who has the problem or need why is it important to solve who need s what because why for detailed help with this step use these resources define the problem design notebook if finding ways to fix small but annoying problems at home or looking for ways to solve or improve frustrating problems with things you buy presents a perfect puzzle for you projects like these may be perfect for channeling your natural problem solving and innovation skills into an engineering focused exploration with a useful outcome key questions what are some strategies to practice selecting a tool from your problem solving toolbox what is the basic problem solving process for equilibrium statics may be the first course you take where you are required to decide on your own how to approach a problem a general approach to problem solving most problems in dynamics can be reduced to three principal steps 1 describe the motion 2 apply the appropriate physical laws 3 apply the appropriate mathematics we shall routinely apply these three steps to most of the problems in this course beginning with the first problem this will be done in

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