

Structured Problem Solving Cheat Sheet

1. Understand the problem	• What is the context? • What are the known/given values? • What are given/known conditions? • What are the units? • What are the unknowns? • What are we trying to find?
2. Develop a plan	• Can you draw a diagram • Can you introduce notation or labels? • Can you convert units to calculus notation? • Do you see or have you read familiar phrases? • Do you see any patterns? • Can you solve a similar but simpler problem? • Can you break down the problem? • Are there different cases or parts to the problem? • Can you Work backwards?
3. Execute on the plan	• Do it!
4. Reflect	• Did you check your answer? • Does the answer make sense? • What was hard? What was easy? • What were you stuck on? • What was the breakthrough? • What do you want to remember from this problem?