Assignment 1 (9/25)

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This homework is due at the beginning of class on Friday 9/29. You may cite results from class as appropriate. Unless otherwise stated, you must provide a complete explanation for your solutions, not simply an answer. You are encouraged to work together on these problems, but you must write up your solutions independently.

You are encouraged to think about the problems marked with a ($\star$) if you have time, but you don't need to hand them in.

Remember that you can always use the result of the previous assignment problems without proof to solve the new assignment problems.

Problem 0$\star$

Over the first week we will be covering section $1-5$ from chapter 12. Try to read the corresponding sections from book everyday after class.

Problem 1

Problems 12.1.$(13, 18, 23, 39 - 42, 45)$.

Problem 2

Note that the book uses respectively (a, b, c) and $\langle a, b, c \rangle$ to distinguish between a point and its corresponding vector. The magnitude of a vector $\vec{v}$ is denoted in the book by $|\vec{v}|$, pronounced norm of v; we also use the symbol $\|\vec{v}\|$ sometimes.

Problems 12.2.$(6, 7, 13, 18, 35, 43, 47)$.