Sample Vocabulary Notecards
(updated: August 2022)

Learning vocabulary is the first step towards mastering the course material. “Vocabulary” means terminology, formulas, and facts. The most effective way to learn vocabulary is to make a notecard for each vocabulary item. You can use physical cards, like 3 by 5 inch index cards, or you can use some equivalent electronic medium.

A complete notecard must include: the term, formula or fact name; the definition of the term or statement of the fact; and at least one example illustrating the definition or fact. Here are some examples.

FRONT of card, or LEFT column of list: *term, formula or fact name*	**BACK of card, or RIGHT column:** *definition, statement, example(s)*
linear sequence	A sequence is ***linear*** if there is a fixed constant d so that each term in the sequence is equal to the previous term plus d. Example with $d = 4$ $3, 7, 11, 15,$ …
exponential sequence	A sequence is ***exponential*** if there is a fixed constant r so that each term in the sequence is equal to the previous term times r. Example with $r = -2$ $1, -2, 4, -8, 16,$ …
quadratic formula	***The quadratic formula*** If $ax^2 + bx + c = 0$ and $a \neq 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. If $b^2 - 4ac < 0$, then there are no real solutions. Example: For $x^2 + 2x - 3 = 0$, use $a = 1,\ b = 2, c = -3$ to get $x = \frac{-2 \pm \sqrt{4+12}}{2} = -1 \pm 2 = -3, 1.$