<u>WebAssign General and Specific Hints:</u>

For typing answers into WebAssign in the correct form, the best guides are the odd-numbered answers in the back of the textbook, the answers in the textbook's examples, and the answers your lecturer recommends.

****CalcPad in Webassign** if you click on the various buttons on the "CalcPad" you will often see a menu of templates useful for typing in answers. There are ones for subscripts, greek letters, etc. Explore.

NOTE: You can retake assignments and submit answers to most individual problems up to 100 times until the due date/time for the assignment has passed.

SPECIAL NOTE: Yes/No, Multiple-choice, Matching questions, and a few others types of questions will have only one, a couple or a few answer submissions allowed.

****All Online HW "A" and "B" assignments are always due at 11:30PM local time, West Lafayette time.**
ALL DUE DATES/TIMES ARE AVAILABLE WHENEVER YOU LOGIN TO WebAssign.
**You should make sure your computer's date, time, and time zone are correct or you will likely experience date/time inconsistencies with the WebAssign HW system. Our time zone is the Eastern Time Zone, New York time.
****HW BONUS POINTS: All Homework assignments are worth 20 points BEFORE Bonus points.**
"A" assignments: The last 2 or 3 problems are worth 4 BONUS POINTS.
"B" assignments: Answers correctly submitted by 7:00AM the morning of the next class meeting following a given lecture will earn a 20% bonus for each problem completed early.
NOTE: This means that being proactive and starting HW assignments before a given Lesson/Lecture is always to your advantage and you should try to repeatedly discipline yourself to form that beneficial habit whenever possible.

<u>GENERAL HW HINT:</u> When you click in an answer box and the calcPad math palette appears with the math symbols to enter answers, there are menus of choices. For example, if you click on the "Functions" button you will see a template for any using any radical root as a choice.

<u>HW's 1, 2, 3</u>, ... For "Simplify the Expression" problems we want answers factored as much as possible for almost all problems. The few exceptions will normally be carefully noted in lectures.

<u>HW's 1, 2, 3</u>, ... As to the form of the answers WebAssign and I would generally expect, we never want complex fractions (fractions within fractions, as mentioned in lecture), so you need to manipulate what you have to get rid of the extra fractions you have in an answer if you end up with a complex fractional answer.

NEVER: Give an approximate answer to a question unless a problem specifically asks you to approximate or estimate the answer.

ALWAYS: Use the correct case for letters and symbols, even for greek letters, there is a difference between using "A" or "a" , etc.

<u>ROUNDING ANSWERS</u>: This applies to the entire semester. Do **<u>not</u>** round early in the your solutions to problems. Always, wait until the very end of the problem and then as the very last thing round off your answer.

<u>HW's 1, 2, 3, etc.</u> **<u>INTERVAL NOTATION</u>** Remember for quizzes that intervals should be written from left to right, from negative to positive, (2,5) not (5,2) or like (-3,6) not (6,-3). Also, if you have more than one interval, those should also be listed from smallest to largest from left to right. Otherwise, it's a like writing a sentence backwards, you can still figure out what it is saying but the grammar is patently incorrect.

<u>HW's 1, 2, 3, etc.</u> **- GRAPHS, READING COORDINATES -** you should indeed generally assume that the major points on a graph given by WebAssign (points, maximums, minimums, x-intercepts, y-intercepts, etc.) are usually some exact and relatively easily found value. Do not try to guess whether an x or y coordinate value is 1.9 instead of 2 or as another example 1.4 instead of 1.5. If it is close by your estimation, then assume the value is 2 or in the second case 1.5.

<u>HW's 1, 2, 3, etc.</u> - x and/or y intercepts on the HW, quizzes, and exams.
The x and y intercepts are really points on the graph, not numbers. They are points where the graph of a function intersects the x-axis or y-axis. Your textbook often refers to them as numbers, and some online homework problems will occasionally refer to them as numbers, but in reality they are points. Most online HW problems will require you to enter x and y intercepts in point form, '(- 4,0)' not '- 4' for example.
For quizzes and exams, when a question asks you to find x and/or y intercepts, the answer(s) expected will always be the actual points not just the numbers. For example (good answer : 'the x intercepts are (3,0), (-5,0)' , bad answer: 'the x intercepts are 3, -5').

<u>HW's 1, 2, 3, etc. General Hint:</u> Problems that require a coordinate pair to be entered.
Some problems already give you the parentheses for the point and you just have to type in "5, 17" instead of "(5,17)". So look at problems carefully and it should be clear to you which form you should type in.

<u>HW's 1, 2, 3, etc..</u> – INCREASING, DECREASING, AND CONSTANT GUIDELINES
First, describing when a function is increasing, decreasing, or constant is simply stating for what **groups of x-values** the slope of the graph is respectively positive, negative, or zero. Key here is finding the correct "**groups of x-values**" , and then describing these using interval notation.
NOTE: A good general principle for increasing, decreasing, and constant intervals and the associated x-values...
If the function is defined for an x-value, that is if the x-value is in the domain of the function, then it should be included in any increasing, decreasing, or constant intervals that x-value is associated with.
****SPECIAL NOTE: PIECEWISE DEFINED FUNCTIONS(LESSON 6):** For increasing, decreasing, and constant intervals, each section of the graph associated with each grouping of x-values of the piecewise function should be treated separately, which may seem a little odd at times. So similar to the above notes for a function, but for each section separately of a piecewise defined function.

<u>HW's 1, 2, 3, etc.</u> - SKETCHING GRAPHS WITH THE WebAssign GRAPHING TOOL
It is easy to get too many points, lines, and segments on a graph, especially the piecewise graphs we will introduce in next week...
HINT: If you are having trouble with a graph, try deleting and clearing everything and starting from scratch.
HINT: When we get to piecewise functions. Be very precise with the end points for each section of a piecewise graph. You will have to think about these a bit for sure.

<u>HW 4,5, etc. General Hint GRAPHICAL TRANSFORMATIONS</u>: You need to keep in mind that the order you do the graphical transformations in is important, sometimes critically so. If you put a value of x into your function, or look at a specific point on a given graph, and then follow the order of operations for the function notation, then that is also the order of the graphical transformations. It is very much cause and effect. If you do this carefully you can usually figure out when and why answer you have is incorrect or not.

<u>HW 6 PIECEWISE DEFINED FUNCTIONS</u>:
f(5) simply asks, 'What is the y-value/output value of f when the x-value/input to f is 5?'
A piecewise function simply divides the x-values/inputs into different groups. For each of these groups of x-values/inputs, a specific way to find the corresponding y-values/outputs is also given. So referring to the example above, 'Which group of x-values is 5 a part of?' That will then determine how you calculate the corresponding y-value.

<u>HW 10 DOMAIN OF A COMPOSTION OF FUNCTIONS:</u> - On the problems involving the domain of a composition of functions, to calculate the composition g(f(x)), you first have to able to calculate f(x). Therefore, although you may find further domain restrictions after the composition is done, you are always restricted to the domain of the input function, which is f(x) in the case of g(f(x)).

HW 12, etc: Using interval notation for a single value, we've used a different bracket, {a}, instead of just a or [a].

General: You should always give an exact answer unless asked to give an approximation, (a fraction, log(7), pi/3, etc.).

General: If a problem tells you to use common logs, that means to use log base 10, (log(x), log(122/13), log(x+10), etc.)

General: Typing lower case "pi" will bring up the π symbol. (This is actually true for all Greek letters, as well as typing in "infinity" will bring up ∞)