Using WeBWorK to Complete Assignments

Access each assignment by clicking on the appropriate link in Moodle.

Each problem in an assignment will be labeled "Problem 1", "Problem 2", etc, but when you select one of those, it will then tell you the appropriate problem to do from a section in your textbook. You can also see the status for each problem so you will know which ones must still be completed.

You enter your answers in the boxes provided for each problem. Be sure to pay attention to any specific instructions. Remember parentheses and order of operations! You can use the "Preview My Answers" button to check that you have no mismatched parentheses, that exponents are entered as desired, and other formatting issues. This will ensure that you have entered the function or answer you meant to enter.

Click "Check Answer," and WeBWorK will tell you immediately whether your answer is correct. If your answer is incorrect, look at the Answer Preview in the grid at the top of the problem. There might also be a helpful Message. You may rework the problem and enter another answer until you correctly solve the problem. There is no penalty for taking several attempts to get the correct answer.

You do not have to complete all the problems in a single session. You can logout and login again later and work on the set some more. Your previous answers will still be there.

Unless otherwise noted in the problem, all numerical answers should be rounded to 3 decimal places or given as an exact symbolic answer. For example, an answer could be given as sin(1) or 0.841.

WeBWorK scores are automatically sent to your Moodle gradebook; however, you may access your grades directly through WeBWorK. To view your scores on past homework sets:
On WeBWork's Main Menu, click "Grades"
You will see a table with the following information:
Set: the homework set
Percent: what percent of the assignment has been completed
Score: the total correct (including partial credit)
Out of: total number of problems in the homework set
Problem: A breakdown for each problem in the homework set

Helpful Hints for Working with WeBWorK

The most important thing to keep in mind is that computer syntax is important! It is the same as with your calculator. You must learn to enter a mathematical expression correctly so that the computer (or calculator) will interpret the expression as you intended.

1. Basic syntax rules (similar to what you do with your graphing calculator)

   - You can type an asterisk (i.e. *) for multiplication. You can type a number and letter or a number and function together (like 2x or 2sin(x)) without the *. If you multiply two variables or functions together, you can use the * between them (like x*y or x*sin(x)), but it may also work to leave it out (like xy or xsin(x)). If you're not sure, preview your answer!
   - Use the ^ for exponents
   - Use **e** for the base of the natural logarithm (2.718….) and **ln(x)** for the natural log function
   - Type **pi** for 3.14159…
   - The square root function is **sqrt(x)** or you can type x^(1/2) or x^0.5 instead.

2. PARENTHESES ARE YOUR FRIENDS!! But don't go overboard.

   - Most important rule! If you have more than one thing in a numerator or denominator of a fraction, or more than one thing in an exponent, or more than one thing being raised to an exponent, you need to put all those items inside parentheses.

     For example, e^{2x} would need to be written as e^(2x). If you wrote e^2x instead, this would be interpreted as $e^2 \cdot x$, not what you wanted. If your answer is $(3x)^2$, you would enter (3x)^2. If you entered 3x^2, that would be interpreted as $3 \cdot x^2$.

     If you want to enter $\frac{1}{x+1}$, you would need to type 1/(x+1). If you wrote 1/x+1without any parentheses, this would be interpreted as $\frac{1}{x}+1$.

     If you want to enter $\frac{2x^2+1}{3x-4}$, you would need to type (2x^2+1)/(3x-4). Both the numerator **and** denominator need to be placed inside parentheses.

     But if you just want $\frac{5}{x}$, you can type that as 5/x with no need for parentheses.

   - Second important rule: Use parentheses with functions

You always need to write sin(...) or cos(...) or ln(…) with the parentheses, where the … stuff inside the parentheses indicates the expression you want to compute with that function. You may see $\sin 2x$ written in the textbook, but you must enter this as sin(2x). If you type sin2x or sin2*x, that will be interpreted as $\sin(2) \cdot x$.

- Use "Preview My Answers" to see how WeBWorK interprets what you have entered for your answer. You will also see a message if there are un-matched left or right parentheses.

3. Be careful to use the same variable as in the question

   - If the question uses the variable *t*, then you must also use *t*. If the variable is *W*, then you must also use *W*. Don't get in the habit of always using *x* as the variable. Pay attention to what is used in the problem. If you get a message that "Variable 'x' is not defined in this context", that means that you should be using some variable other than *x* in your answer.

   - WeBWorK is case sensitive with variables. Do not enter capital X if the variable is a lowercase x. Do not enter w if the variable is W.

4. Numerical Accuracy!

   - Numerical answers can be entered exactly (for example sqrt(2) or 2/3) or as a decimal (for example 1.414 or 0.667). If entered as a decimal, always use at least 3 decimal places (rounded) unless the problem explicitly asks for something else.

5. Types of Answers

   - Values in a list are separated by commas. Eg. $x^2 = 4$ at –2,2
   - Points are entered in parentheses. Eg. $(2,-1)$ or $(-2,4,1)$
   - Vectors are entered using <…> or with i,j,k notation. Eg. $< 2,3,4 >$ or $2i + 3j + 4k$
   - Inequalities:
     $2 < x < 10$ is entered as (2,10)
     $2 < x < \infty$ is entered as (2,infinity)
     $2 \le x \le 5$ is entered as [2,5]