

WebAssign Homework General and Specific Hints:

GENERAL HINTS

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

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

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

Hint: Typing lower case "pi" will bring up the π symbol.

ROUNDING ANSWERS: This applies to the entire semester. Do not 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.

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.

SPECIFIC HINTS

HW15A, etc.

INTERVAL NOTATION

- 1) "[" or "]" means include the value as a solution, "(" or ")" means exclude the value.
- 2) ∞ or $-\infty$ are always excluded as solutions, since they are not finite numbers.
- 3) For multiple integrals using a Union Symbol, "U", between the intervals is correct to do, unless a problems specifically says otherwise.
- 4) Remember that intervals should always 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.
- 5) Using interval notation for a single value, we've used a different bracket, {a}, instead of just a or [a].

HW9A, etc.

SKETCHING GRAPHS WITH THE WebAssign GRAPHING TOOL

A VERY COOL FEATURE, BUT... It is easy to get too many points, lines, and segments on a graph, especially since there will be multiple curves & lines in the same problem many times...

HINT: always use "lines", DO NOT USE "segments" or "rays", when sketching the region on HW9A, etc.

HINT: If you are having trouble with a graph, try deleting and clearing everything and starting from scratch.

HINT: Be very precise with each part of the graph. You will have to think about these a bit for sure.

SUGGESTION: Go through the basic tutorial will see on such problems once to save yourself trial and error headaches.

HW8A #4

The antiderivative of $1/\sqrt{1-y^2}$ is the arcsiny or the inverse sine of y. You do not need to memorize this for exams and quizzes.

HW7A #6

You might have to look up the antiderivative of the $\sec(x)$, but the antiderivative of the $\sec(x)$ is not something I expect you to memorize for quizzes and exams.

HW7A, 8A, etc.

(Enter your solution in the form $F(x, y) = C$ or $y = F(x, C)$ where C is a needed constant.) Really nothing new, because this simply means your answers will have x , y , and C in your solution, as we always have in our solutions of these differential equations. C still represents an arbitrary constant. Again, really nothing new, just a different way of wording things.

HW7A #9B

Don't have a graphing calculator?

- 1) There are thousands on campus, find one to borrow for a few minutes.
- 2) Many of your computers have one automatically.
- 3) There are free online graphing calculators and programs. For example...

<http://www.meta-calculator.com/online/>

https://my.hrw.com/math06_07/nsmedia/tools/Graph_Calculator/graphCalc.html

but use whatever works for you on the homework.

HW4A, 4B, 5A, 5B etc.

Form of answer for solving differential equations. Solve for y ?

NORMALLY, solve for y , which is what I would expect you to do on a quiz.

IN WEBASSIGN, it varies, there are some problems where it wants the answer to be something like " $y^8 =$ something" instead of taking the 8th root or $1/8$ power of both sides of the equation.

HW4A, 4B, 5A, 5B etc.

Using absolute value for $\ln x$? NOT ALWAYS.

Mathematically, the absolute value around the x , or the function embedded in $\ln(\text{function})$ only occurs when you take the antiderivative of $1/x$ or $1/\text{function}$. So, be careful about adding that elsewhere.

Also, in a word/application problem, or any other problem where the absolute value symbols can be removed mathematically, or because of the context of the word/application problem, then you should remove the absolute value symbols, sometimes replacing them with parentheses. SO, this is a little subtle and get help understanding this.

HW4A & HW 4B, etc.

Any problems that asks you to... "Select the function that is a solution to the differential equation..." Or "Verify that the general solution satisfies the differential equation." Or anything like that, are simply asking you to use/plug-in y and y' to the differential equation and make sure the function y actually makes the differential equation true. So, if you have y , then find y' , and then test them in the differential equation for that problem.

HW3B - #3

$\ln x$ will appear in your answer somewhere, and WebAssign want $\ln|x|$. This is really not mathematically necessary, but is not incorrect either.

HW2A - #8b

Setting up part b and solving to a certain point is not unreasonable. However, the resulting equation you get later in the problem that must be solved for the value of b is algebraically unreasonable. So, this is a great opportunity to use your graphing calculator or a Computer Algebra System to solve for the value of b .

HW1B - #10a

Since the given derivative function has a maximum of 3 decimal places for the coefficient of a term, use 3 decimal places for any approximated numbers you have in your answer for part a.

HW1B, ETC.

A few of problems do not use u-substitution, you instead need to simplify algebraically, then take more basic antiderivatives.

HW1A, 1B, ETC.

For trig answers use something like $\sin(5x)$ instead of $\sin 5x$, use parentheses so WebAssign understands you.

HW1A - #10c

If you set $P=0$ and try to solve you get $\ln(0)$, which is undefined. Also, the basic exponential function has a horizontal asymptote of $P=0$. So the population, P , mathematically can never be zero. Mathematically. However, we also cannot have 0.1 live trout. So, we pick the smallest integer population possible, we pick the population to be 1. Then you will be able to solve for the time and the answer will work in WebAssign.