

Introduction to *WeBWorK* for Students

I. What is *WeBWorK*?

WeBWorK is a system developed at the University of Rochester that allows us to put homework problems on the web and allows you to submit your answers on the web. *WeBWorK* is currently used in over 300 colleges, universities and high schools.

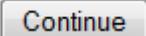
WeBWorK is a grader, not a tutor. It will give you immediate feedback on your mastery of each topic. It may also give you hints. Research has shown that the use of *WeBWorK* has improved student success by an average of half a grade in College Algebra courses at some universities. *WeBWorK* requires that you have access to the internet, but you are not required to have access while working out a homework set — only for downloading the set and for submitting your answer

You may try each homework problem up to fifteen (15) times and, with each try, there is a message telling you whether the answer is correct or not. There is no penalty for submitting several incorrect answers to a problem before submitting the correct answer. This allows you to find your own errors and to understand the topic of the question better. The *WeBWorK* homework sets are individualized so that each student has a different version of each problem.

II. How to use *WeBWorK* to do your homework

1. Find a computer with access to Firefox, Chrome, Internet Explorer, Safari or another browser. It can be either your own or one in any of the university computer labs. ***We have found it best to use Firefox in order to avoid random characters appearing in the formulas.***
2. Open the browser and go to the main *WeBWorK* homepage. The address is: <https://courses.webwork.maa.org/webwork2/uky-ma113>

The screenshot shows a web browser window with the URL <https://courses.webwork.maa.org/webwork2/uky-ma113>. The page header includes the WeBWorK logo and the MAA (Mathematical Association of America) logo. Below the header, there is a navigation menu with 'Main Menu' and 'Courses'. The 'Courses' menu is expanded to show 'uky-ma113'. The main content area contains a login form with the following text: 'Please enter your username and password for uky-ma113 below:'. Below this text, there is a note: 'If you check **Remember Me** your login information will be remembered by the browser you are using, allowing you to visit WeBWorK pages without typing your user name and password (until your session expires). This feature is not safe for public workstations, untrusted machines, and machines over which you do not have direct control.' The login form includes fields for 'Username:' and 'Password:', a 'Remember Me' checkbox, and a 'Continue' button. On the right side, there is a 'Site Information' sidebar with the following text: 'Welcome to the MAA WeBWorK hosting services. These services are provided since December 6, 2010. If you need to host a free trial course, please fill out the form at <http://forms.maa.org/r/webworktrial/add.aspx>. For all fee based course hosting, please fill out the form at <http://forms.maa.org/r/webwork/add.aspx>. FAQ, please visit, <http://webwork.maa.org/faq.html#hosting> and for any additional queries, send us an email at webwork@maa.org'.

- To log in, fill in your username (this is the same as your LinkBlue userid in ALL CAPS) and your password (this is initially your UKID number), and click on the Continue button:  .
- You should now be looking at a page headed by the course title and term that lists the homework sets that are available for you to work on. The first thing you should do is to change your password. Click on Password/Email in the Main Menu.
- You will be presented with the following window in which you should change your password from the initial login password to something of your own making. Additionally, if you do not wish to receive all email through *WeBWorK* through your UK email account, you can enter a new email account in the Change Email Address. **WARNING:** All email will go to that email account. It must be an account that you access on a daily basis. Most communication about this course will be done through email. We suggest that you use your UK email account as all official UK announcements will be sent there.



 A screenshot of the 'Password/Email' page in WeBWorK. The page has a header with the WeBWorK logo and 'MAA MATHEMATICAL ASSOCIATION OF AMERICA'. The breadcrumb trail is 'webwork -> uky-ma113 -> Password/Email'. The page title is 'Password/Email'. There are two main sections: 'Change Password' and 'Change Email Address'. The 'Change Password' section has three input fields for 'Sheldon Cooper's Current Password', 'Sheldon Cooper's New Password', and 'Confirm Sheldon Cooper's New Password'. The 'Change Email Address' section has two input fields for 'Sheldon Cooper's Current Address' (pre-filled with 'sheldon@bigbangtheory.com') and 'Sheldon Cooper's New Address'. At the bottom of the page, there is a 'Change User Options' button circled in red. A footer note says 'Page generated at 08/04/2012 at 06:39pm EDT WeBWorK © 1996-2011 The WeBWorK Project'.

When you are done with your changes, click on Change User Options.

- Click on Homework Sets in the Main Menu and you will be presented with a list of Homework Sets.



In the Status column, each set is marked as open, closed, or not yet open. If the set is open, that means that when you solve a problem, it will be counted towards your grade. If the set is closed, you can still solve problems and get your answers checked, but your results will not be recorded.

The screenshot shows the WeBWorK interface for course uky-ma113. The main content area displays a table of homework sets:

Name	Status
WW01-Review	will open on 08/22/2012 at 12:01am EDT
WW02-Limits	will open on 08/22/2012 at 12:01am EDT
WW03-Limits2	will open on 08/22/2012 at 12:01am EDT
WW04-Limits3	will open on 08/22/2012 at 12:01am EDT
WW05-Limits4	will open on 08/22/2012 at 12:01am EDT
WW06-Limits5	will open on 08/22/2012 at 12:01am EDT
WW07-IVT	will open on 09/19/2012 at 12:01am EDT
WW08-Derivative1	will open on 09/19/2012 at 12:01am EDT
WW09-Derivative2	will open on 09/19/2012 at 12:01am EDT
WW10-Derivative3	will open on 09/19/2012 at 12:01am EDT
WW11-Derivative4	will open on 09/19/2012 at 12:01am EDT
WW12-Derivative5	will open on 09/19/2012 at 12:01am EDT
WW13-Derivative6	will open on 10/15/2012 at 12:01pm EDT
WW14-AppDerivative1	will open on 10/16/2012 at 12:01am EDT
WW15-AppDerivative2	will open on 10/16/2012 at 12:01am EDT
WW16-AppDerivative3	will open on 10/16/2012 at 12:01am EDT
WW17-AppDerivative4	will open on 10/16/2012 at 12:01am EDT
WW18-AppDerivative5	will open on 10/16/2012 at 12:01am EDT
WW19-AppDerivative6	will open on 10/16/2012 at 12:01am EDT
WW20-Integrals1	will open on 11/13/2012 at 10:55pm EST
WW21-Integrals2	will open on 11/13/2012 at 11:01pm EST
WW22-Integrals3	will open on 11/13/2012 at 11:01pm EST
WW23-Integrals4	will open on 11/13/2012 at 11:01pm EST

Below the table are buttons for 'Clear', 'Download PDF or TeX Hardcopy for Selected Sets', and 'Email instructor'. A 'Course Info' box on the right states: 'These are the homework sets for MA 113: Calculus I for the Fall 2012 Semester at the University of Kentucky. If you have problems entering answers or navigating the homework sets, please check the course homepage for further instructions.'

After the indication of whether the set is open or closed, there is additional information about the due date (if the set is open), or whether the answers are available (if the set is closed). When the answers are available, you have the option of looking at correct answers when viewing a problem.

7. After you have clicked on a homework set, you will see a page with a list of the problems in the set you chose. To view and/or answer a problem, click on that problem in the 'Problem Number' list.

The screenshot shows the WeBWorK interface for a homework set. The main menu on the left includes 'Courses', 'Homework Sets', 'Password/Email', 'Grades', 'Instructor Tools', and 'Report bugs'. The 'Homework Sets' section is expanded to show 'WW01-Review'. The main content area displays a table of problems for the 'WW01-Review' set. The table has columns for 'Name', 'Attempts', 'Remaining', 'Worth', and 'Status'. All problems are listed with 0 attempts and 100% worth. The 'Set Info' panel on the right provides details about the assignment, including the due date and instructions for students.

Name	Attempts	Remaining	Worth	Status
Problem 1	0	unlimited	1	0%
Problem 2	0	unlimited	1	0%
Problem 3	0	unlimited	1	0%
Problem 4	0	unlimited	1	0%
Problem 5	0	unlimited	1	0%
Problem 6	0	unlimited	1	0%
Problem 7	0	unlimited	1	0%
Problem 8	0	unlimited	1	0%
Problem 9	0	unlimited	1	0%
Problem 10	0	unlimited	1	0%
Problem 11	0	unlimited	1	0%
Problem 12	0	unlimited	1	0%
Problem 13	0	unlimited	1	0%
Problem 14	0	unlimited	1	0%
Problem 15	0	unlimited	1	0%
Problem 16	0	unlimited	1	0%
Problem 17	0	unlimited	1	0%
Problem 18	0	unlimited	1	0%
Problem 19	0	unlimited	1	0%
Problem 20	0	unlimited	1	0%
Problem 21	0	unlimited	1	0%
Problem 22	0	unlimited	1	0%
Problem 23	0	unlimited	1	0%
Problem 24	0	unlimited	1	0%
Problem 25	0	unlimited	1	0%

8. First generate a hardcopy of your homework set. You can do so as follows:

The screenshot shows the 'Hardcopy Generator' page in WeBWorK. The main menu on the left includes 'Courses', 'Homework Sets', 'Password/Email', 'Grades', and 'Report bugs'. The 'Homework Sets' section is expanded to show 'WW01-Review'. The main content area displays the 'Hardcopy Generator' page for the 'WW01-Review' set. The page includes a 'Show' section with checkboxes for 'Student answers', 'Correct answers', 'Hints', and 'Solutions'. The 'Hardcopy Format' is set to 'Adobe PDF'. A 'Generate hardcopy' button is visible at the bottom of the page.

Click on Homework Sets in the Main Menu. To print out a particular set, click in the box next to that set in the Name column, and then click Download Hardcopy for Selected Sets. You will be taken to the [Hardcopy Generator](#) page. Check that the desired set is highlighted, and then click the Generate Hardcopy button at the bottom of the page. Wait for the server to generate the page, and then save it to your computer and print a copy. **Your instructors cannot emphasize enough that you should always first download a hard copy of your Homework set and work it**

out by hand away from the computer, or at least think carefully about each of the problems on it. Working out a homework set in from your computer without previous preparation leads to guessing answers and that is not very efficient or effective. Studies show that this practice leads to poorer performance on exams.

9. Once you have finished working out the problems in your homework set, you can input your answers. Click on the name of the set (it is a hyper link) and you will see a page listing the problems in the set (middle columns) and other information, including due date and whatever the instructor wants to communicate to you (right column).
10. Once you click on a problem, you will see the text of the problem with boxes for your answers. After working out the problem on paper, enter your answers in the boxes and click on the **Submit Answers** button. You will want to save the paper on which you work out the problems, because this is part of what you will need to study for quizzes and exams.

When you submit an answer, you will be told immediately whether or not your answer is correct. If your answer is not correct, you may try again. After you have attempted a problem, you can use the buttons at the top of the page to go to the next problem or the previous problem, or to see the list of problems again. If you are working on a homework set that is already **closed**, you will have the option to see the correct answer. To see the correct answer, just check the box **Show correct answers** and click on the **Check Answers** button (you do not have to enter an answer to see the correct answer).

If your answer is marked incorrect by the computer and you are not sure what it has read is what you have entered, check the **Answer Preview** column that appears at the top of the page once you have submitted an answer. The computer shows you how it is interpreting your answer.

If you want to check the status of your problems (**e.g.** to double check that your answers have been recorded), use the **Prob. List** button at the top of the problem page to see the problem list page. The problem list page shows how much credit you have for each problem that you have attempted.

When you finished working, log out by clicking on **Log Out** at the top right corner of the page or towards the top of the left panel. All of your answers to date will be saved. You do **not** have to finish a homework set all in one sitting.

11. There are three links at the left of the page in the **Main Menu** that are available to you at all times during a *WeBWorK* session.
 - **Homework sets** takes you to the list of available sets (the page you saw immediately after you logged in).
 - **Password/Email** takes you to the page where you can reset your password and the email address used by *WeBWorK* to contact you.
 - **Grades** takes you to a summary of your grades for *WeBWorK* assignments.

- Also available to you at all times is an Email instructor button, at the bottom of every *WeBWorK* page.

III. Important facts to know

1. **What do you do if you have problems with *WeBWorK*?**
 - If you have a problem logging in, contact your instructor.
 - If you have a problem printing out a set, ask a consultant at one of the computer labs. If you don't get sufficient help, contact your instructor.
 - If you have questions on specific homework problems or if you have comments about *WeBWorK* that you think can help us make *WeBWorK* better, click on the 'Email instructor' button on any of the pages of *WeBWorK*.
2. If you are logged on to *WeBWorK* for longer than 30 minutes without any activity, you may be asked to log in again. This is a security measure. You can resume your work after you are logged back in. All your results from the last log in will be saved.