

Calculus JEOPARDY (Revised) Instructions



Calculus JEOPARDY is a game meant to review for the A.P. Calculus exam. There are a total of 122 questions in these 4 versions of the game that cover all topics on the Advanced Placement Calculus Syllabus. The JEOPARDY, Double JEOPARDY, and Triple JEOPARDY versions cover problems on the AB and BC Exams while the BC Triple JEOPARDY Version covers those topics on the BC exam exclusively.

We have revised Calculus JEOPARDY because Flash Player, which drove the application, was no longer supported on today's browsers. Thanks to Dan Schwab and Ted Tyree for working to get the game working again, in an improved form.

There are four significant changes to Calculus JEOPARDY.

1. The game requires the Internet to be running on your computer. It will work with any of the major browsers like Chrome, Firefox, and Safari. It should run with older versions of these browsers, but it is suggested that you upgrade to the latest version.
2. Because of this, there is no installation necessary to play the game. You are merely provided with a link to run the game.
3. The solutions to all problems are now on the screen. All you need to is to scroll down to the next page to see the solution. This is a tremendous improvement to the previous version.
4. As of now, we have no capability of saving games from session to session. We are working to make this option available and when we do, we will be sending you the link to the changed version as well as instructions on how to save.

In JEOPARDY, remember that players are given the answers and are required to determine the question. For instance, here is a typical answer and correct question:

Answer: the general expression whose derivative is $2x$.

Question: what is $x^2 + C$?

In this document, remember that "Answers" refer to the calculus problems and "Questions" refer to the solution to the problems.

For people who are contemplating purchasing the solution version, or have already done so, here is information and suggestions in running the application.

What You Will Receive in Your Download

1. The JEOPARDY Link:

This is a Word and also PDF file that gives you the url for the Jeopardy game with solutions. It is suggested that you copy and paste it in your browser (Internet Explorer, Safari, Chrome, and Mozilla Firefox) rather than double-click it. The internet must be running in order to play Calculus Jeopardy.

2. The JEOPARDY Problems and Solutions:

There are 4 files: Jeopardy1Soln, Jeopardy2Soln, Jeopardy3Soln, and Jeopardy4Soln. Each contains first, the student version of all problems with no solutions. You can Xerox them for use in your class. Then come the solutions of all problems. The Final Jeopardy Solutions are at the end of the Triple Jeopardy and Triple Jeopardy BC documents. Feel free to print them out and give them to students but please do not share the files with students electronically as they may give them to friends in another school whose teacher is also playing Calculus JEOPARDY with their class.

3. The Scorecard Programs

There are two separate Excel files, one for AB (Jeopardy Scorecard) and one for BC (Jeopardy Scorecard BC). They run exactly the same but the categories for Triple JEOPARDY are different. Use the Excel file for whatever course you teach.

To use this spreadsheet, type in the student names in the left-hand column. If you are teaching several classes and wish to have several versions of these scorecards, save them under different names (using SAVE AS). You can have as many versions of this spreadsheet as you wish.

For any question, if a student gets it correct, put a “+” in the appropriate box and it will turn green. If the student gets it wrong, put a “-” in the appropriate box and it will turn red. If the student chooses not to answer the question put a “0” in the appropriate box and it will turn gray. Money values will be added to or subtracted from the student totals. Also, the number of questions that a student answers correctly will be updated (problems that were not answered count as an incorrect answer but, as in the TV game, do not affect the monetary values).

Color coding on the left side is based on the percentage of problems students get correct. Feel free to use the Excel sort feature to arrange the data alphabetically, by percentage of questions correct, or by money.

If you need to add more rows and are unsure how to do this, email me at the address at the end of this document and I will walk you through it.

Playing the Game

To start the game, just paste the given link into your browser. This will create the opening screen in your default browser; Explorer, Safari, Chrome or Firefox. (We have tested this game on the 4 listed browsers. However, it may also run on other browsers.) **It is important to allow your browser to Accept Cookies.** If you have another browser and the game will not open, or, if because of settings on your computer, the game will not open, we request that you get in touch with us at team@mastermathmentor.com and we will try to help you to get the game running in your browser.

Because of the size of your screen, you may see that things seemed cramped. To alleviate that, simply resize the window by stretching it out to the size you wish. The game works best when it is full screen.

Choose your game by clicking on the link in the main menu. The JEOPARDY, Double JEOPARDY and Triple JEOPARDY problems are options for both AB and BC Calculus students while the BC problems are specific to BC students only.

Once in your game screen, you play Calculus Jeopardy exactly like the game show. Again, you may have to resize the window. Choose a category and money amount and click on that square. The answer comes on the screen as a PDF document within the browser either as a separate window or as a new tab. **(If the PDF document does not appear, please check that your browser allows pop-up windows. Contact us at the email address above if you are having problems.)** Again, because of the size of your screen, the top of the solution to the problem may appear on your screen. Simply resize the window to show only the problem.

When you are finished with that answer, close the window (or tab if it was opened in a new tab) and your game board will be visible again on the screen. The square for the category and amount you just chose will now be gray. However, you may click on the square again to go back to it if you wish. That will “un-gray” the square.

At this point, we have no capability of saving the game. If you want to continue a game at another session, you will have to write down the squares that have been chosen already and when you re-open the game, simply click on these squares to get the screen back to where it was when you stopped playing. We are working to include a save game option and when it is available, it will automatically update your version when you open the game, and we will inform you of the new capability.

How Much Time to Allow on Problems

These are not easy problems, especially the larger dollar amounts. So you cannot play the game rapid-fire like the TV show. Rarely will students be able to answer a question within 30 seconds and the bigger money questions will take more time. They are similar to free-response problems on the AP exam.

That said, you shouldn't allow students unlimited time. If students know what they are doing, then the problems are not hard to solve. If they don't know what they are doing, you will want to train them just to move on as in the real exam. For this reason I purposely did not give a suggestion of how much time to allow. I suggest that you do the problems yourself to get some idea of timing or look at the solutions.

Methods to Play Calculus JEOPARDY

For all methods: Choose a student to pick the category and the money amount, then click on that square and the problem will pop up on your screen. Calculators are not allowed unless specifically mentioned (indicated both on the game board and in the “answer”). Free response problems should be exact or to three decimal places if calculators are permitted.

Method 1: As a warm-up to your class

You choose the problem to show (a topic that you are working on currently or just completed is best) and when the students enter the room, the problem is on the screen and they work on the problem while you take attendance. Decide on the allowable time. Collect the solutions and go over the problem. Update the scorecard (Excel spreadsheet).

If you play the game this way, the updated scorecard will give a neat competition throughout the year and students will enjoy coming to the class. You need to decide whether you want to display this scorecard to the class, as there may be someone who will be upset that they are being embarrassed if they get few or no problems correct. To get around this problem, you may want to ask the students to choose a pseudonym that they will recognize but no one else theoretically will.

Method 2: As an entire class as a review for the AP Exam.

It probably doesn't make sense to play the game like the TV show where the person who first answers the problem correctly is the only one who gets credit. If your classes are like most, you will most likely have a couple of students who are simply better than the others and will dominate.

I suggest that you set a time limit for each problem. At the end of the time limit, the students have to decide their answer (or choose not to answer). The solution should be in the form of a question: what is B? or what is 1.234? Give them an index card on which to place their "question" and have them hand it in. This eliminates the possibility of cheating and allows you to update the scorecard at your leisure.

You have to decide whether you wish to then continue the game or review the problem at that time. From a pedagogical point of view, it is probably best to go over the problem right then and there. However, doing so takes time. A good option is to have a student come to the board and show how he/she got the solution. When you are ready to show the solution, simply scroll the screen and the solution will come into view.

Method 3: With teams.

You may want to use teams with two or three students to a team. The rest of the class plays the role of the audience but they should try the problems as you go along. Whoever solves the problem first gets the money. Wrong answers loses the money. Again, you need to decide the appropriate amount of time for each problem.

Method 4: At home.

You may simply want to give the students the small-type version in printed form and let them try the problems at home. You can do this all at once or give them the 5 "answers" for each category when you complete teaching that topic. When student's come into class, have them submit their solutions. It will give you and the students a good idea of how well they understand the concept when the scorecard is updated.

Final Jeopardy:

After you have played JEOPARDY, Double JEOPARDY, and Triple JEOPARDY, you can play Final JEOPARDY. Students can wager up to the amount of money they have. When they answer the Final Jeopardy problem, they are either right or wrong and they either add to their total or subtract from it.

You should show the students the category, let them wager, and then allow them to solve the problem by showing them the "answer". Final JEOPARDY problems should be given no more than 4 minutes.

Errors and Feedback

I created all of these problems myself and had two of my best students, Matt Tanzer and Anderson Wang (both having now graduated college), do every problem and look for errors on my part or note problems that are not clear. Hopefully all “answers” are clear and solutions correct. If you do spot an error or a problem that isn’t clearly written, please let me know at team@mastermathmentor.com and I will definitely look at your issue. Anyone who purchases the game of Calculus JEOPARDY will receive notifications of updates as they are created. Updating will take no work on your part as the included link will just open to the updated version. We will let you know this occurs so that you understand the new game options.

Please let me know how you like the game and suggestions for improvement: problems that are good and problems that should be replaced. If you think a particular topic in the A.P. Calculus syllabus is not covered, please give me that feedback as well. This game is flexible enough to allow you to create your own answers and questions. Contact us if you are interested in doing so!

Enjoy the game and best wishes to your students.

Stu Schwartz
www.mastermathmentor.com
April, 2017

