

## Calculus JEOPARDY Instructions



Thanks for purchasing Calculus JEOPARDY. 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.

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.

### What You Will Receive in Your Download

You will receive an installation guide which can be downloaded as a PDF or text document. You will also receive three zipped files. Read the installation guide, which will tell you how to unzip your files into folders and what these folders will contain.

#### 1. The “Calc-Jeopardy-Game” Folder:

The folder named “Calc-Jeopardy-Game” contains the opening screen (Jeopardy.html), 4 folders containing each of the 4 Calculus Jeopardy versions, and another folder called z-images containing some odds and ends. The only file you will need to use is Jeopardy.html. Please be sure that this file is left in its original folder. (In other words... Don't move it!)

When you download this game, it will reside on your computer as a web application. That means it will run in typical web browser like Internet Explorer, Safari, Chrome, and Mozilla Firefox. The nice thing about this game is that you do not actually have to be online to play the game as long as you have one of those browsers on your computer.

There are 30 problems for each version and these are 30 separate PDF files. They will reside on your hard disk but you should never need to open them as the game board will access them. However, since they are PDF's, they can be opened if you wish.

## 2. The “Calc-Jeopardy-Add-ons” Folder:

The “Calc Jeopardy Add-ons” folder contains 12 files. Below is the description of these files.

### The “Instructions” file

This document that you are reading is the Instructions file ([Jeopardy-Instructions](#)). This file is also available as a link from the main menu of the Calculus Jeopardy Game.

### The “Question” file

I suggest you print this PDF file ([Jeopardy-Questions](#)) out. It is a four-page document containing just the “questions” to the answers. This document is useful if you are playing Calculus JEOPARDY in a rapid-fire style and do not intend to go over the solutions until later.

### The Solutions files

There are 4 separate PDF files that contain solutions: one each for JEOPARDY ([Jeopardy 1 Solutions](#)), Double JEOPARDY ([Jeopardy 2 Solutions](#)), Triple JEOPARDY ([Jeopardy 3 Solutions](#)), and Triple JEOPARDY BC ([Jeopardy 4 Solutions](#)). 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.

### 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.

## The Small Version Files

These are 4 PDF's ([Jeopardy 1 Small](#), [Jeopardy 2 Small](#), [Jeopardy 3 Small](#), [Jeopardy 4 Small](#)) that have the "answers" (i.e. the problems) for all 30 problems of each version but in smaller type. You can print and copy these to give them out to students if you want the students to try the problems on their own and not take up class time.

### 3. The "Calc Jeopardy Problems" Folder

In case you have trouble getting the game to work in your browser, I have provided all the games in 4 PDF files ([Jeopardy 1 PDF](#), [Jeopardy 2 PDF](#), [Jeopardy 3 PDF](#), [Jeopardy 4 PDF](#)) . This is just for emergency purposes and hopefully you will never have to use it. Read below for more on this option.

## Playing the Game

When you receive the download, it will all reside in a folder called "Calc-Jeopardy-Game". I suggest placing this folder in a convenient location on your computer such as on your desktop.

To start the game, just double-click on the file Jeopardy.html located in the folder. 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 have provided the game in PDF format in your download. The PDF version of the game will not operate like the normal Jeopardy game where you click on the game board, but you will have the "answers" and "questions" which will still allow you to present the game to your students. We then request that you get in touch with us at [team@mastermathmentor.com](mailto:team@mastermathmentor.com) and we will try to help you to get the game running in your browser.

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. These instructions are also available as a link on the main menu.

Once in your game screen, you play Calculus Jeopardy exactly like the game show. 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 below if you are having problems.)** 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. Also, you can right click a square (use option-click on a Mac) and select 'Reset' to return that individual square to its blue color.

At any time while playing the game you can simply exit your browser. When you come back to the game by double clicking on the file Jeopardy.html, the game will be exactly in the same position you left it. If you are playing with multiple classes and wish to save games with different answers exposed, just press SAVE AS and name the game. Pressing RESET will allow you to change all gray squares (answers exposed) back to blue. **Again, to save files, it is important that your browser has been set to accept cookies.**

As mentioned above, whenever you exit the game, your computer remembers the position of the game board. For instance, suppose you were playing Double Jeopardy with only one class:

Day 1: the default game runs from a fresh board. You get through 10 questions. There is no need to save the game.

Day 2: you start by going to the opening screen and select Double Jeopardy. The game board will then open exactly as you left it on Day 1. You get through another 10 questions. Again, no need to save the game.

Day 3: you start by going to the opening screen and select Double Jeopardy. The game board will then open exactly as you left it on Day 2. You can repeat this process as many times as needed. If you want to start from scratch (make all the gray squares blue), press RESET.

Now suppose you were playing Double Jeopardy and were playing it with two classes:

Day 1 – Class 1: the default game runs from a fresh board. You get through 10 questions. Go to SAVE AS and save it as Class 1.

Day 1 – Class 2: when you open the default game, it will be in the same position as you left Class 1. Press RESET. You might want to go to SAVE AS right away and save this game as Class 2. Now you don't have to worry about saving at the end of the session.

Day 2 – Class 1: the default game opens. **Go to LOAD and open Class 1.** You will now be at the position you left class 1 on day 1.

Day 2 – Class 2: the default game opens. **Go to LOAD and open Class 2.** You will now be at the position you left class 2 on day 1.

If you wish to turn a gray square back to blue, right click your mouse on that square and you can RESET it. On the Mac, this would be an OPTION-Click.

As you save more and more games, you can do some housekeeping by selecting DELETE and choosing which games to eliminate from memory.

### **How Much Time to Allow on Problems**

These are not easy problems. 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. You are free to use the solution files and show them on the screen but realize that there are other problems above and below it so show only that individual problem. A good option is to have a student come to the board and show how he/she got the solution.

### 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 now in Multivariable Calculus), 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 [sschwartz8128@verizon.net](mailto:sschwartz8128@verizon.net) and I will definitely look at your issue. Anyone who purchases the game of Calculus JEOPARDY will receive updates as they are created. Updating will be easy. I will send you the corrected page and you will place it into the appropriate folder. The computer does the rest.

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  
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