

1. When the user submits a correct answer to a math question, what are the functions that get executed on the client and server side to handle the action? Please list the functions and specify how they are invoked and/or how they interact with each other (in the form of a call graph, etc.). For instance, foo() calls bar(), or foo() schedules a timeout that invokes bar() after a specific delay. Please preserve the order of execution.

(Please specify if the function belongs to the client or the server)

(In case of anonymous functions, please identify the function as <filename>:<line#>)

2.a) Each round of the game finishes after a certain delay, managed by the server. What is the exact routine of handling the expiration time of the game? In other words, what are the exact functions that are executed to complete this feature? Similar to the previous question, include functions on both client and server side and their interactions (in form of a call graph or similar relations). Please preserve/display the order of execution.

2.b) During the execution of the aforementioned feature, are there any cases that the event race problem can potentially occur?

3.a) A developer is trying to extend the application by adding a feature when a client is disconnected from the server (/lib/modules/race.js:96). This code is currently commented out. What does this code segment do in a high level?

3.b) How many times is the function proc() invoked in this code segment?