# Quality Attribute Scenarios

- Performance:

    ● Source of Stimulus: A player.

    ● Stimulus: The player answers an algebra question in a level of our game.

    ● Environment: The game is locally hosted by the player.

    ● Artifact: The input processing system and graphics system.

    ● Response: The game's graphics properly respond to the correctness of the user's input as an answer to the algebra question.

    ● Response Measure: The latency between the user answering the question and the graphical response is at most 50ms.

- Usability: (The instruction screen how to play, hint features, input verification)

    ● Source of Stimulus: The player (a general user who plays the game) is the primary source of stimulus for usability.

    ● Stimulus: The user wants to play the game seamlessly, meaning they should be easily able to understand how to navigate and interact with the game, not crash the game from unexpected input and the program should react accordingly to users input.

    ● Environment: The user's actions occur at runtime, a specific example would be answering prompted questions.

- Artifact: The system, the portion being stimulated, the graphical user interface, as well as input detection.

- Response: The system should respond accordingly to the user's input. That means parsing and reacting to typed queries like answering questions or navigating to the correct screens when selected. It should also react to the correctness of their input, such as rewarding correct answerings and punishing and giving hints for wrong answers.

- Response Measure: Should measure length input. Correctness of input. Task time. The amount of answers parsed and responded too. Amount of hints delivered. Proportion of valid vs invalid input.

- Modifiability:

  - Source of Stimulus: End user.

  - Stimulus: Add more levels to play.

  - Environment: Runtime.

  - Artifact: Code - level select screen module.

  - Response: Add more levels to the main game.

  - Response Measure: More levels are visible on the screen.

- Appearance: Player submits an answer

  - Source of Stimulus: User.

  - Stimulus: Clicking a button that starts an action.

  - Environment: In-level wait state.

- Artifact: Player and enemy systems as well as visual window.

- Response: Display game's visuals with correct animations, graphics, and object placements.

- Response Measure: Respond with correct animations in under 50 ms.