<div align="center">Group 2 Sprint Log</div>

Sprint 1

Scrum master: Michael

Start date: 27.02.22
End date: 28.02.22

Sprint goals:
1. Come up with broad plan for entire practical.
2. Plan what the model should look like.
3. Write model interface.
4. Write tests for the model.
5. Plan what the API should look like.
6. Write tests for the API.

Sprint review:

This sprint went relatively well, probably because much of it involved planning and setting up rather than implementation. The first 5 goals were achieved, as well as the actual model being built (however it will need significant refactoring and updating as the project continues). Tests for the API were not written due to timing constraints. To improve, the next sprint will allow more time and will include goals to improve existing work.

Sprint 2

Scrum master: Dmitry

Start date: 28.02.2022
End date: 2.3.2022

Sprint goals:
1. Refactor model code.
2. Improve model tests.
3. Build UI.
4. Write API for server.

Sprint review:

The success of this sprint was varied. Most of the individual work around writing the API and building the API went smoothly. However due to miscommunication, every member of the group refactored the model code separately, meaning we have three very different versions (which accomplished the same outcome) to try to merge. This was resolved by meeting in person and working through each amendment. For the next sprint we will be explicit about who is to edit which code files. We will also improve communication by creating and using a WhatsApp group rather than teams group because it is more accessible.

Sprint 3

Scrum master: Mike

Start date: 2.3.2022
End date 5.3.2022

Sprint goals:
1. More client tests
2. More server tests
3. More model tests
4. Controller (client) for the UI
5. Add into API function to track guesses (5)
6. Add into model function to track guesses and function hasLost (haven't won and they've run out of guesses)
7. Change the way we generate equations (text file full of equations)

Sprint review:

A minimum number of basic tests have been added for everything. Much more rigorous testing is need. The UI shell has been made and looks good, however the controller still needs work. We were able to make the required changes to the model. To make the next sprint more productive it would be beneficial to pause altering the model and API, allowing time for the controller to be built.

Sprint 4

Scrum master: Michael

Start date: 5.3.2022
End date: 6.3.2022

Sprint goals:
1. Refactor UI code
2. Integrate UI with client
3. More model tests
4. Add functionality in model to state easy or hard (four modes (simple, add up to correct solution, guess = as well, both add up and guess = sign)
5. Easy hard functionality added to API and client
6. Check style
7. Javadoc

Sprint review:

We have managed to merge the UI with the API. We have achieved adding some tests however not the amount that is desirable. We have added the game functionality for the added modes and this has been added to the API, client, and controller. We have looked at most of the check style, however some differences in the set up of our different IDE's is currently causing some differences. We have added Javadoc to the game model.

As the project comes closer to being finished we are finding it more difficult to work separately because the different elements need to work together. We are now adapting our work style to

working in person rather than working separately and then bringing our work together. By working in person, we can communicate immediately and ask our questions and have them answered instantly. This communication will be far more helpful with adding the controller to communicate with the API.

Sprint 5

Scrum master: Dmitry

Start date: 6.3.2022
End date: 8.3.2022

Sprint goals:
1. Tests for controller
2. Add hard mode into GUI

Sprint review:

The final sprint was undoubtedly the most difficult as we finalised the additional modes in the game. There was slight confusion around how we were implementing certain aspects of the game and what was expected from different aspects of the package. This confusion is expected and normal, and was resolved in due course. The two goals of this sprint have been achieved, however as the sprint progressed, there was more work to be completed in this sprint than anticipated.