**Project Deliverable**

1. The dataset is Handwritten math symbols dataset from Kaggle, uploaded by Xai Nano. It can be found at https://www.kaggle.com/xainano/handwrittenmathsymbols/home. It consists of over 100 000 images of mathematical symbols.
2. 

   i )

   For pre-processing, I am planning on using ImageDataGenerator from keras.preprocessing.image. This will allow me to rescale, shear, and flip the images to get better results. The data set does not seem to have much noise, so I do not believe any noise removal will be necessary. I also plan on using the Histogram of oriented gradients feature. There are many fields in the dataset, some might have to be thrown out to simplify learning. Furthermore, some of the data is fairly inaccurate (some of the symbols are poorly written), these might also have to be thrown out.

   ii)

   A convolutional neural network would be a good choice for this because there are images involved. A basic ANN might also provide good results, but it would surely be less powerful and less precise. I believe that for well written symbols (neatly written, with reasonable noise), the accuracy should be over 90%.

   ii)

   I would like to integrate the final project into a webapp, where people can upload images of hand written equations and the app will output it in text. This is my first time building a web app, however, i am confident that I will be able to integrate the project nicely.