

MATHEMATICS ANALYSIS AND
APPROACHES HL
Producing the IB Logo with the Fourier Series

Candidate Code:

1 Rationale

I have shown interest in visual arts done through the means of software, with particular experience in 3D modelling and animation in Blender and Cinema 4D.

I never was experienced with drawing, therefore producing digital art on a 2D plane using artistic skill was not of interest to me. However, something that I came across online was the use of the Fourier Series in order to produce vector art, which instantly intrigued me.

While vector art files such as those with the file extension ".svg" relate to mathematics in the sense that it contains multiple graphed mathematical relationships in order to produce an image, the method of using the Fourier Series to produce similar art is more mathematically intriguing, as it proves use just one expression to produce the same result done by the numerous mathematical relationships.

2 Aim

3 Plan of Action

(Sanderson, 2019)

References

Sanderson, G. (2019, June). *But what is a fourier series? from heat flow to drawing with circles.* Retrieved from <https://www.youtube.com/watch?v=r6sGWTCMz2k>