

Field Trip # 33

Developed by:

Subject:

Short description:

Educational Level:

Field trip type:

Educational

Outcomes:

Content:

Notes to instructor:

Creating & Saving Fractals

Keith Lynn

Creating & Saving Fractals

In this field trip, the students will learn how to draw fractal images such as Julia Sets & the Mandelbrot set & use the netpbm package to store the images.

9th – 12th Grade

Lecture with Activity

The student will be able to:

- Understand what a Julia Set is
- Draw the Julia Set for a quadratic or trigonometric function
- Understand what the Mandelbrot Set is
- Store jpg or gif images of Julia Sets or the Mandelbrot Set

It is recommended that the netpbm packages be installed on the laptops. The instructor can lead the student through the drawing of the Julia Set or Mandelbrot Set so that the students will see how to change the colors associated with a particular orbit of the function.