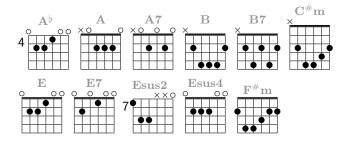
## Jonathan Coulton - Mandelbrot Set



Intro: Esus2 E Esus4 E Esus2 E

Pathological monsters! cried the terrified mathematician  $\frac{A}{A}$  Every one of them is a splinter in my eye I hate the Peano Space and the Koch Curve I fear the Cantor Ternary Set  $\frac{A}{A}$  The Sierpinski Gasket makes me want to cry And a million miles away a butterfly flapped its wings On a cold November day.. a man named Benoit  $\frac{A7}{B7}$  E Mandelbrot was born

His disdain for pure mathematics and his unique  $F^{\#}m$  geometrical insights

A B7

Left him well equipped to face those demons down

He saw that infinite complexity could be described by  $F^{\#}m$  simple rules

He used his giant brain to turn the game around  $^{\rm E}$  And he looked below the storm and saw a vision in his head

A bulbous pointy form  $\mathbb{F}^{\#}$  m

He picked his pencil up and he wrote his secret  $$^{\rm F\#}_{\rm B7}$$  E  $\,$  B7

Take a point called C in the complex plane

E
B7
E
B7
E
B7
E
B7
Let Z1 be Z squared plus CAnd Z2 is Z1 squared plus CAnd Z3 is Z2 squared plus Cand S0 on

If the series of Z's should always stay  $C^{\#}m$  CClose to C and never trend away

A
B7
That point is in the Mandelbrot Set

Mandelbrot Set you're a Rorschach Test on fire You're a day-glo pterodactyl You're a heart-shaped box of springs and wire You're one BADASS FUCKING FRACTAL And you're just in time to save the day  $F^{\#11}$  A7 Sweeping all our fears away  $F^{\#11}$  You can change the world in a tiny way

E Mandelbrot's in heaven, at least he will be when he's  $\mathbf{F}^{\#}\mathbf{m}$  dead

Right now he's still alive and teaching math at Yale EHe gave us order out of chaos, he gave us hope where  $F^{\#}m$ there was none

And his geometry succeeds where others fail EA7
If you ever lose your way, a butterfly will flap its wings EFrom a million miles away, a little miracle will come to Etake you home

## [Chorus]

And you're just in time to save the day  $F^{\#}11$  A7 Sweeping all our fears away  $F^{\#}11$  You can change the world in a tiny way  $F^{\#}11$  Go on change the world in a tiny way  $F^{\#}11$  Come on change the world in a tiny way