

Find the number of 6-cycle cardioids around the Mandelbrot set.

Lavours' method counts the number of 6-cycle discs and cardioids

6-cycle fractions are $\frac{j}{2^6 - 1} = \frac{j}{63}$

$\frac{1}{63}, \frac{2}{63}, \dots, \frac{62}{63}$ combine these in pairs

31 pairs = 31 6-cycle discs

And cardioids.

6-cycle discs:

2 principal series

0 Farey sequence

Multiplier rule: $4 + \frac{1}{1}$

Also count the 2-cycle disc 1, 3-cycle discs (2), 3-cycle cardioid (1)

$31 - 2 - 4 - 1 - 2 - 1 = 20$ 6-cycle cardioids



