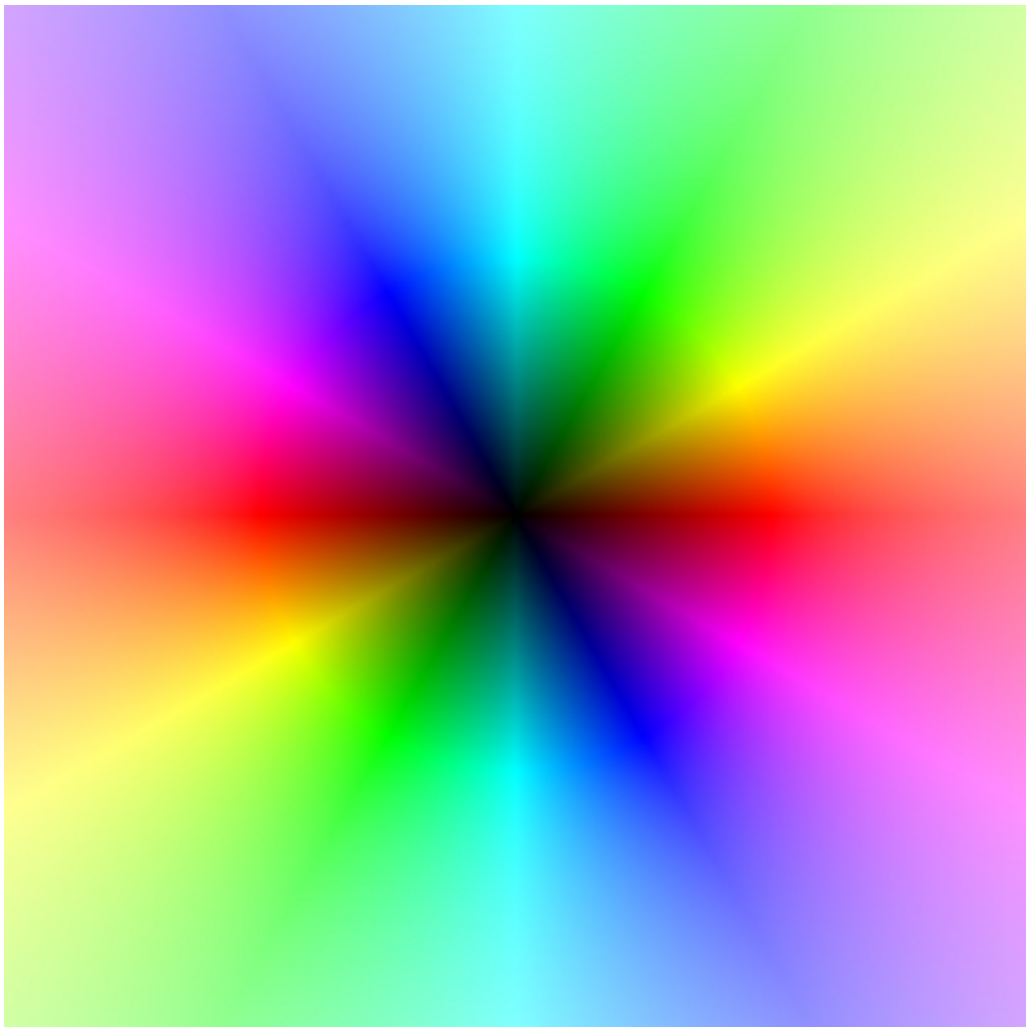
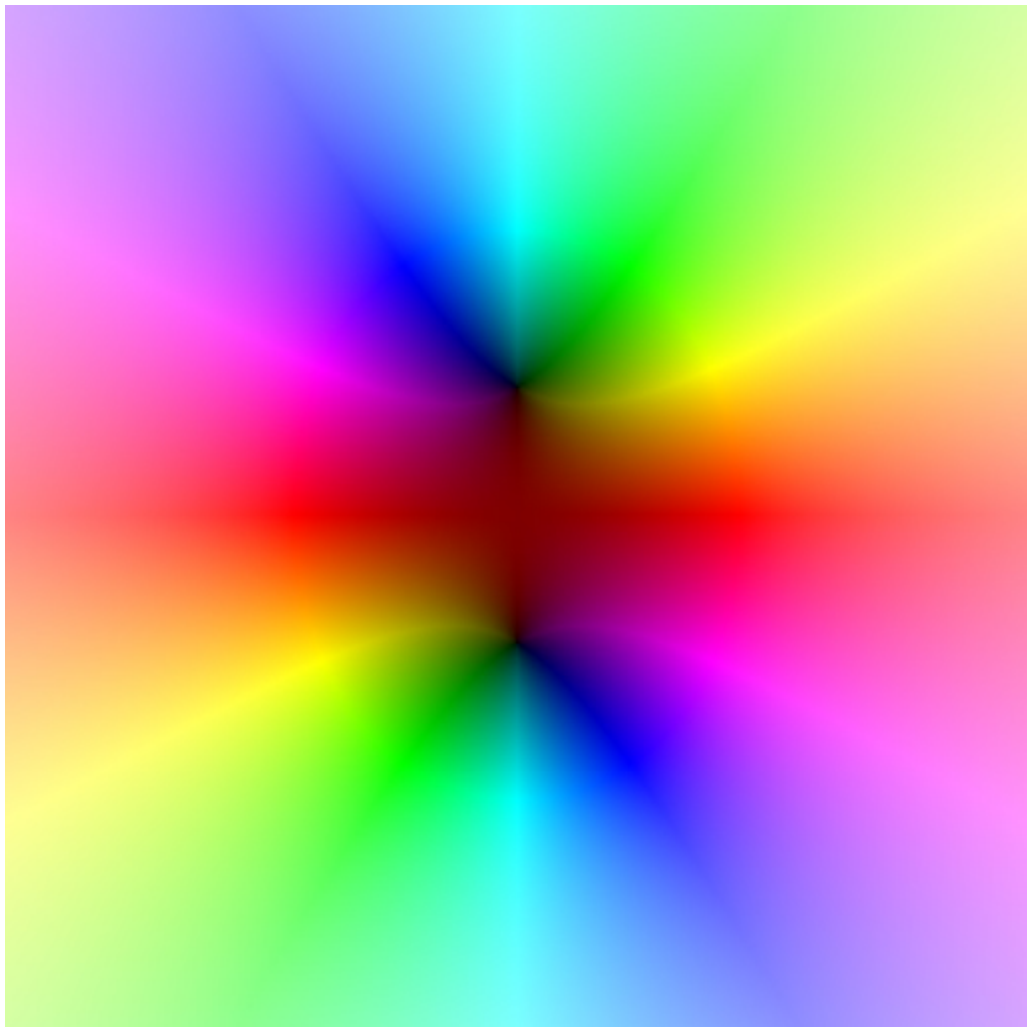
$f(z) = z$

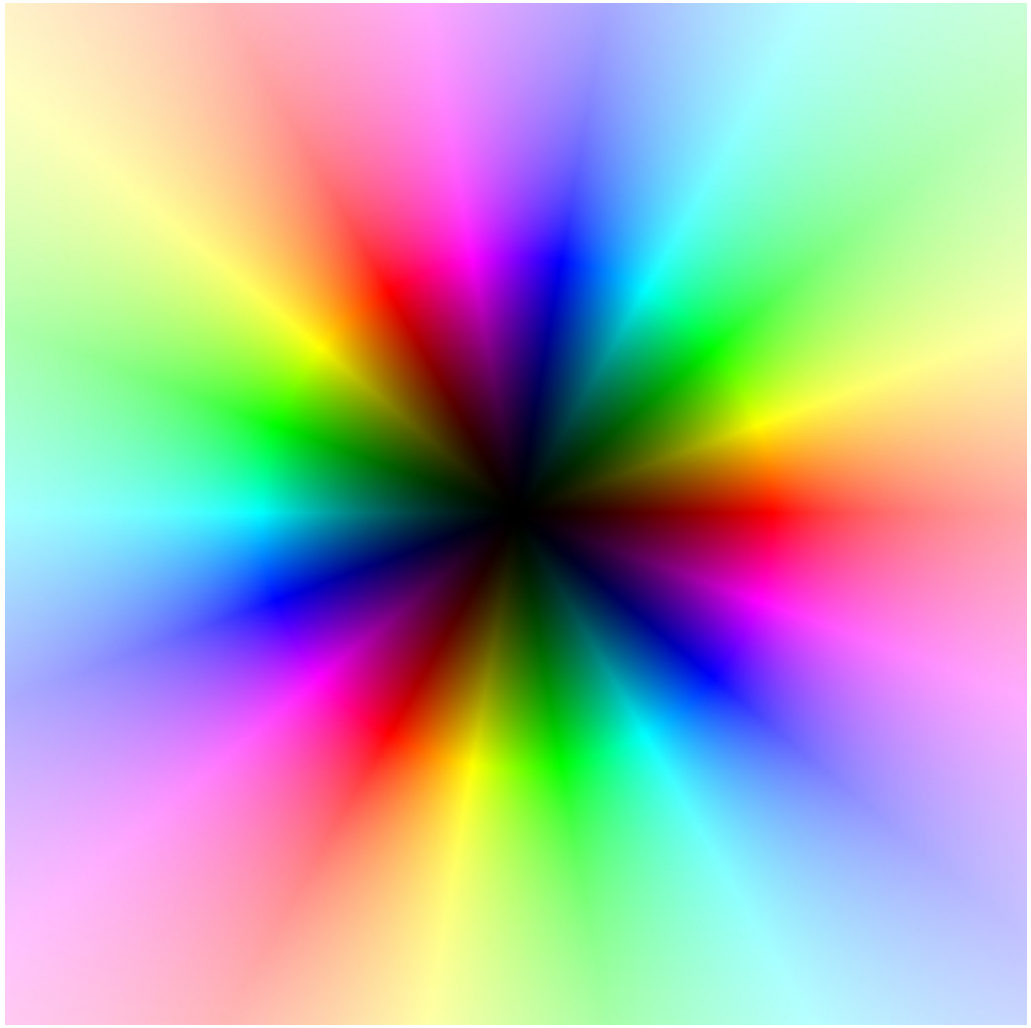


$f(z) = z^2$

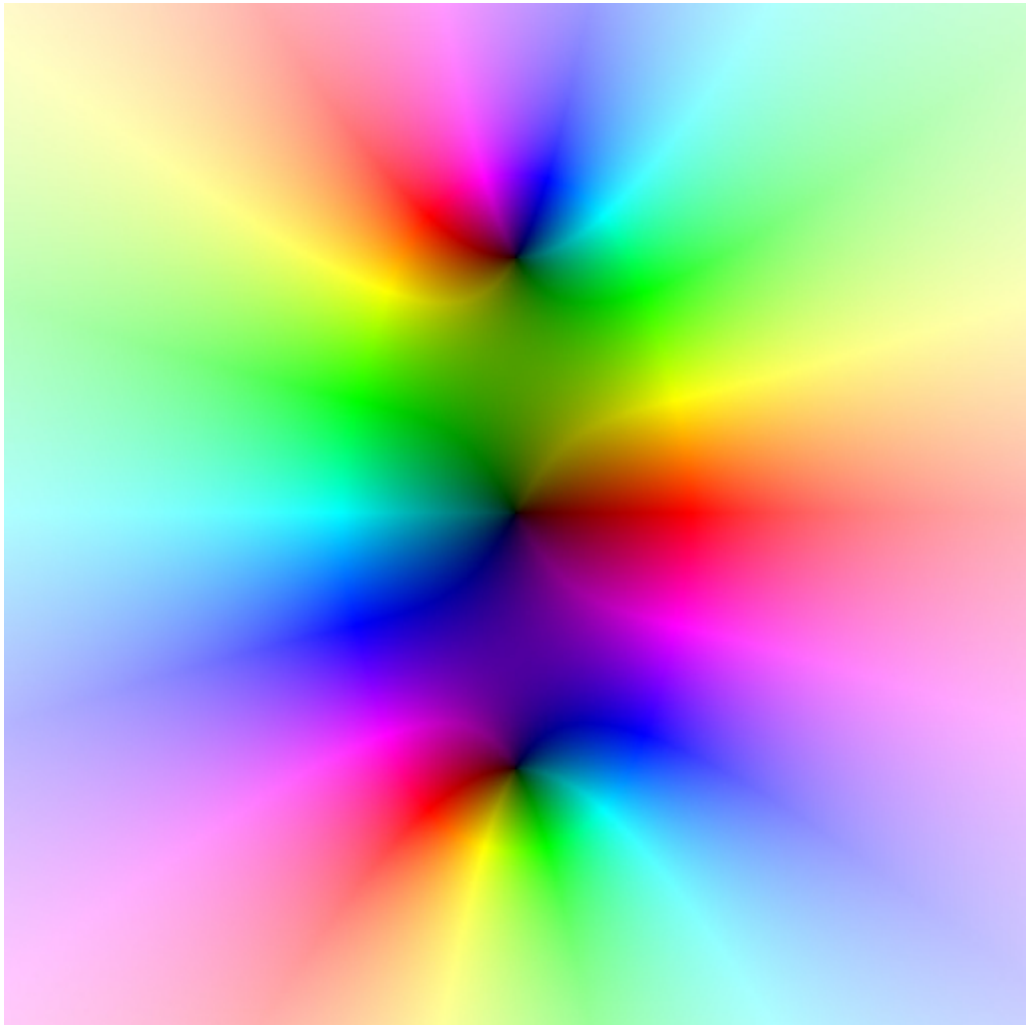


$f(z) = z^2 + \frac{1}{4}$

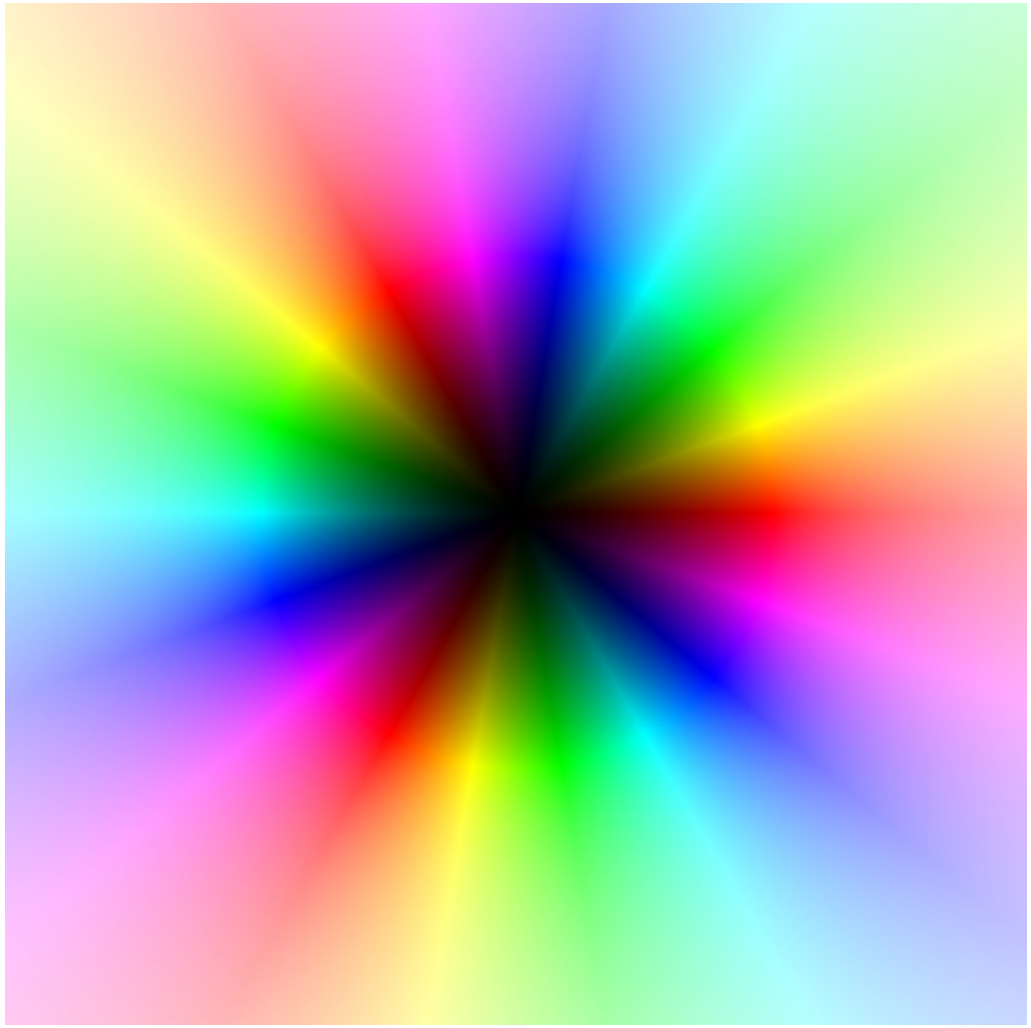
$f(z) = z^2 + 1$



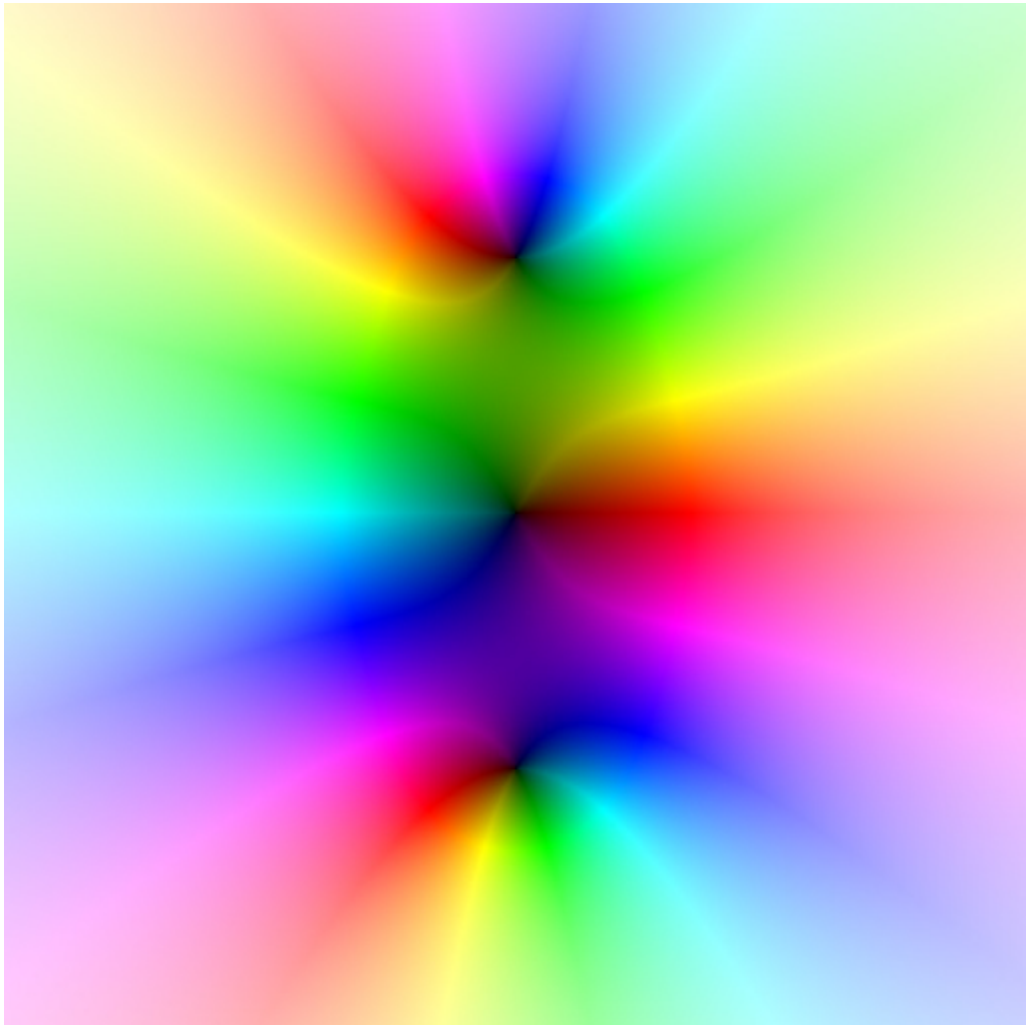
$f(z) = ?$



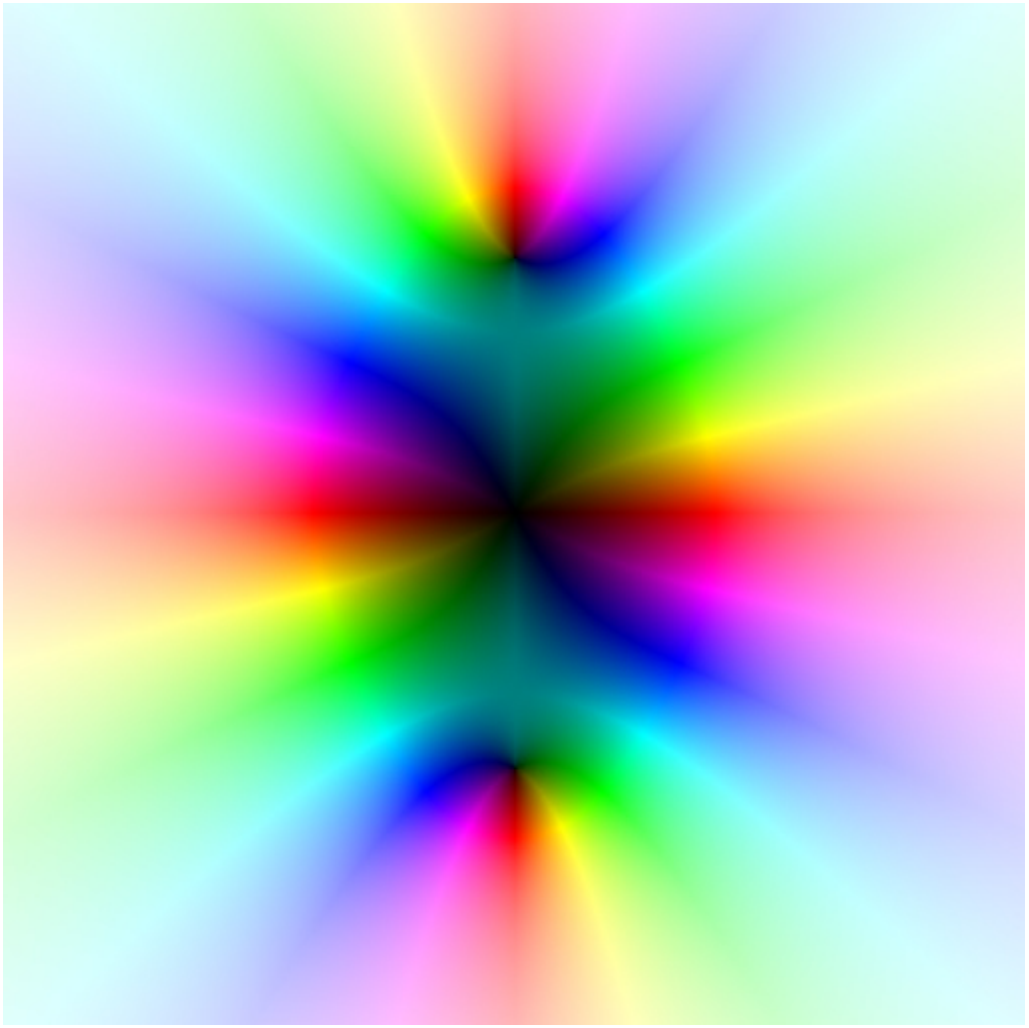
$f(z) = ?$



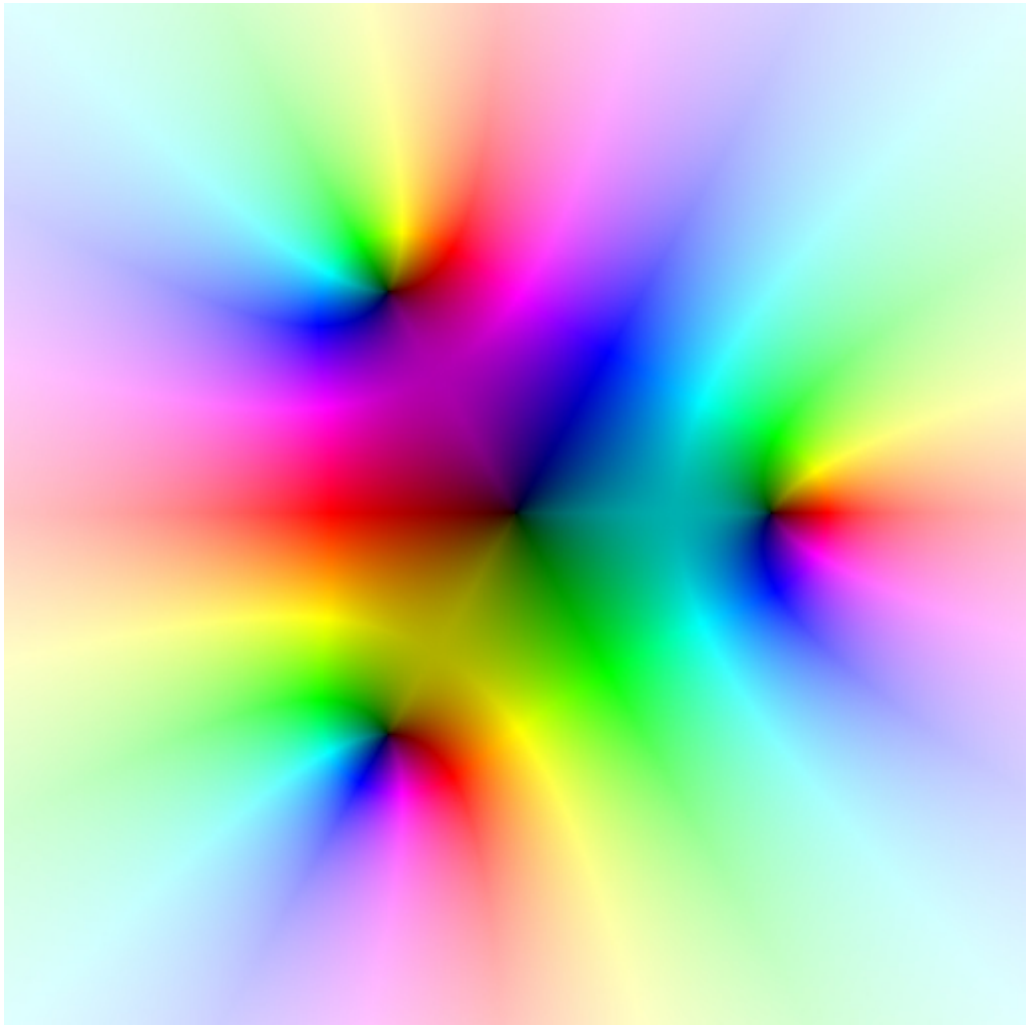
$f(z) = z^3$



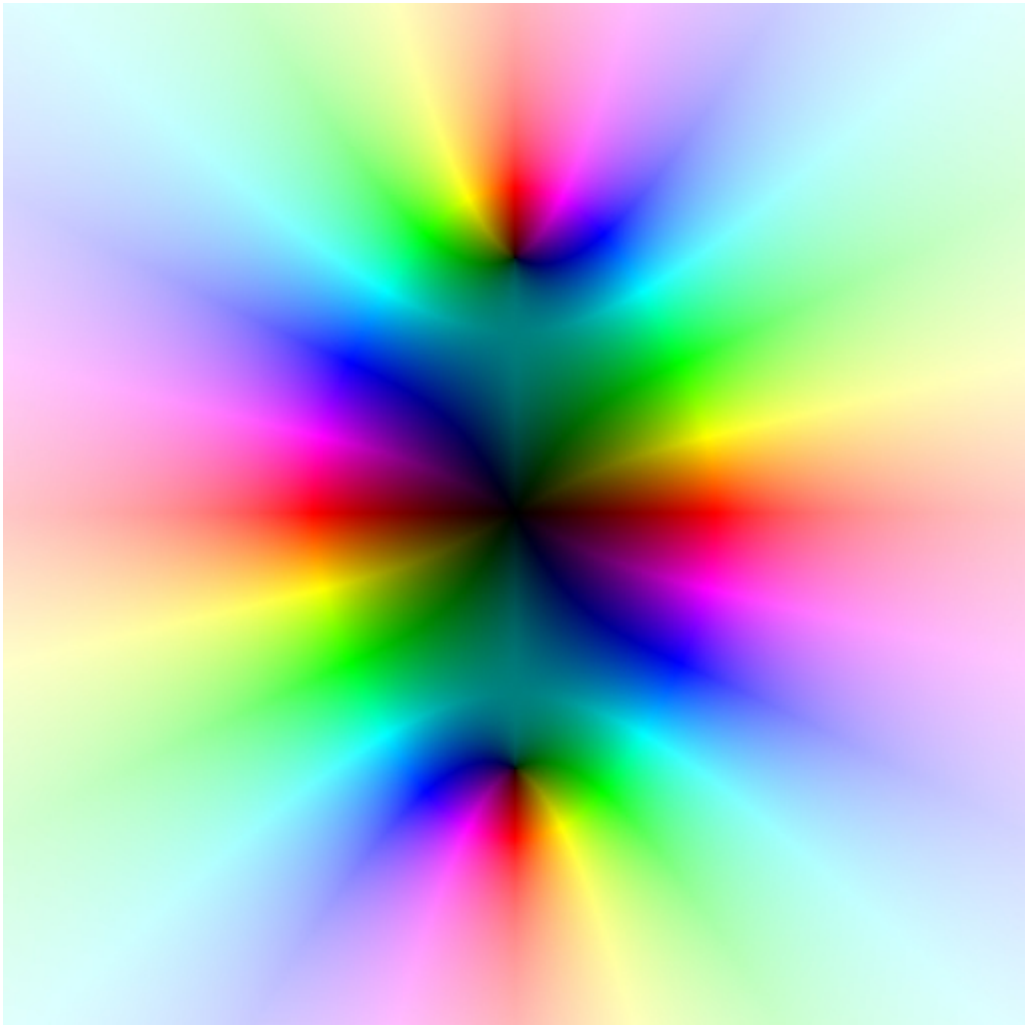
$f(z) = z^3 + z$



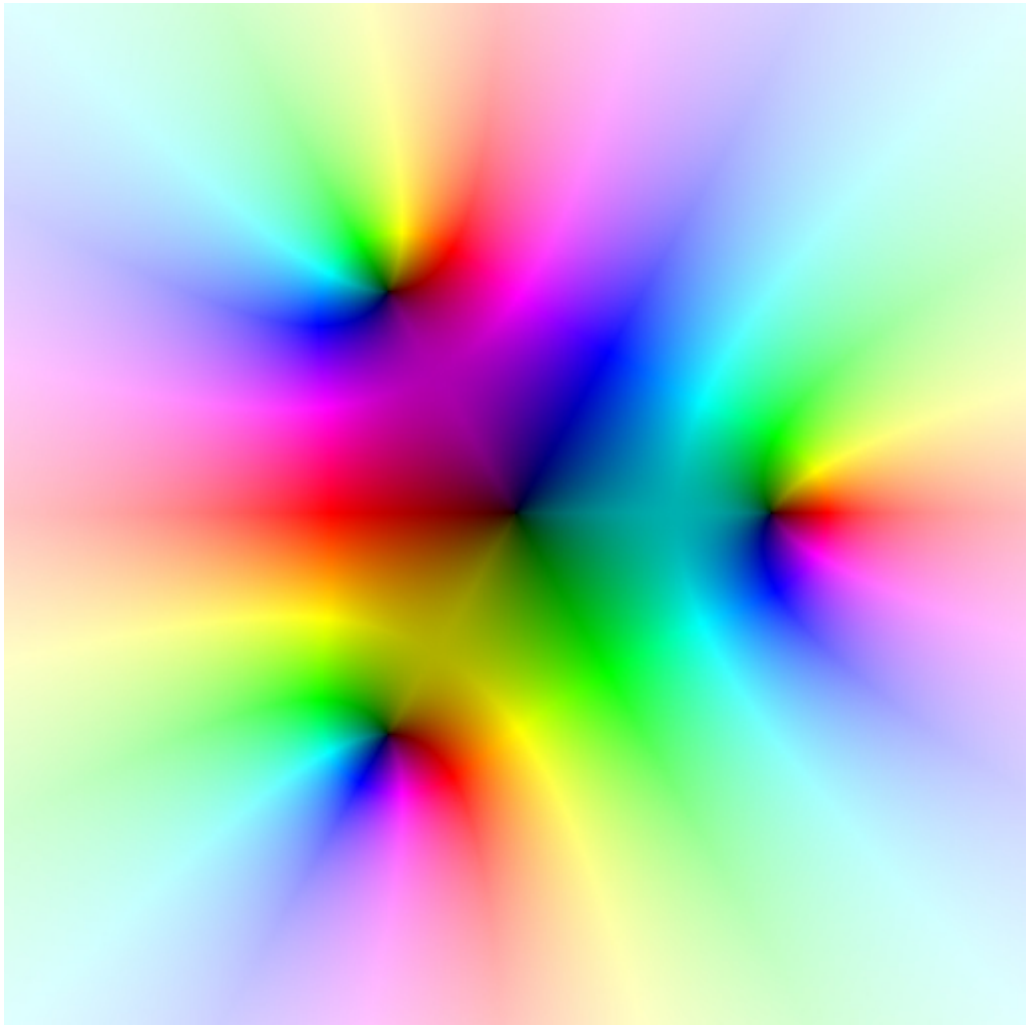
$f(z) = ?$



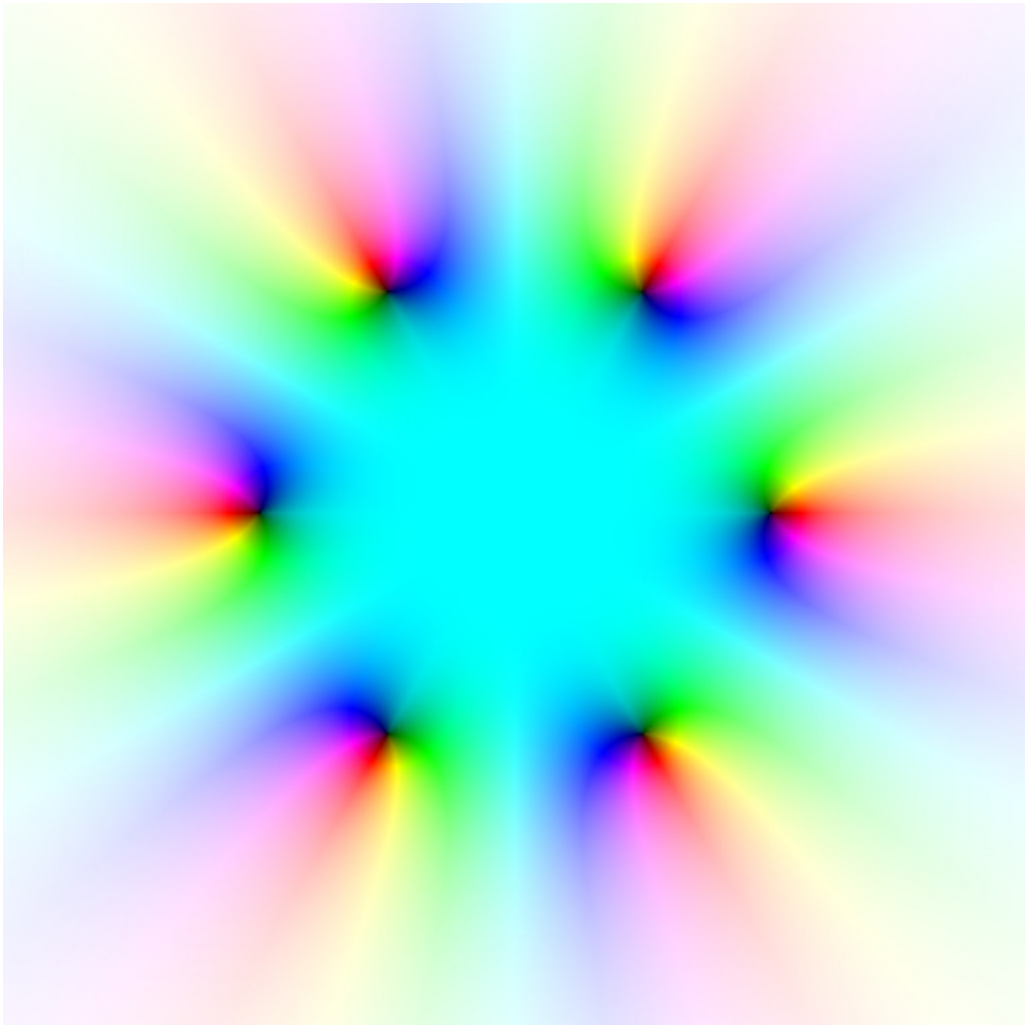
$f(z) = ?$



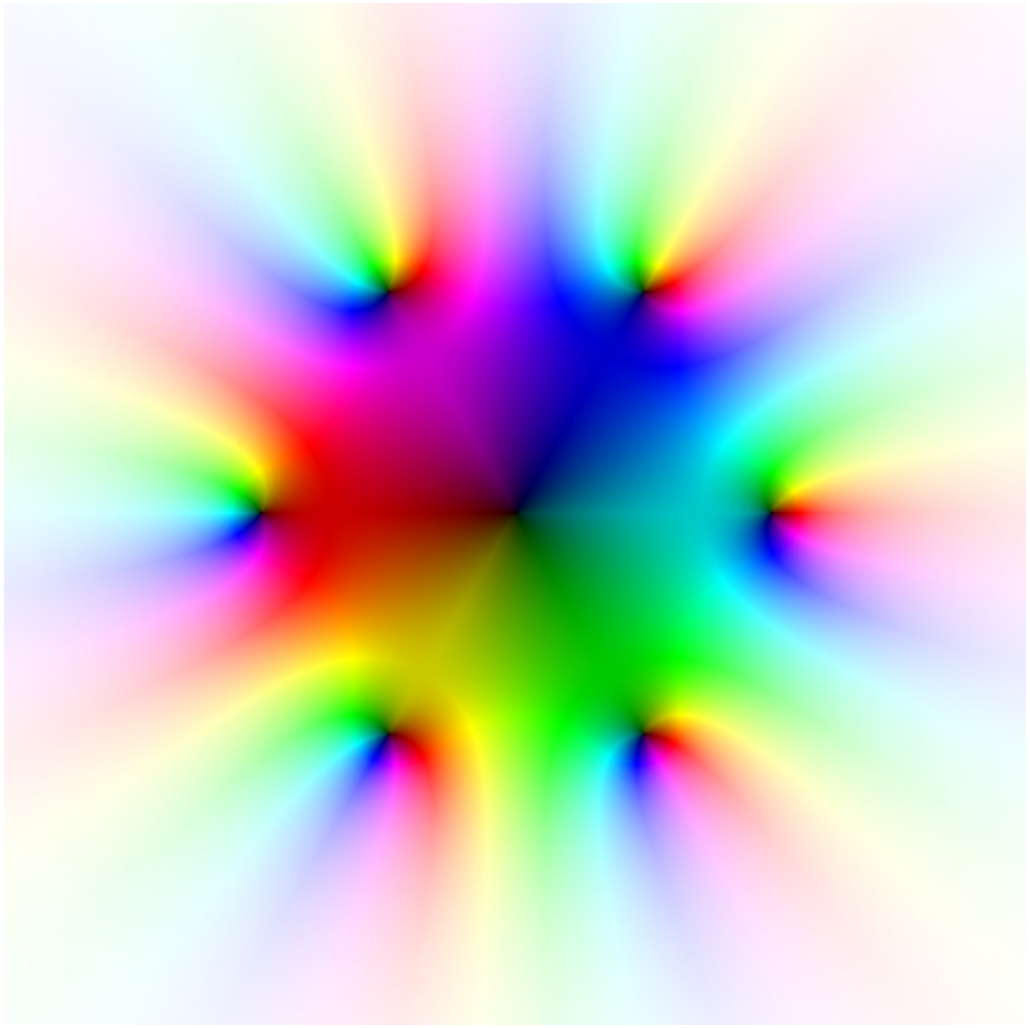
$f(z) = z^4 + z^2$



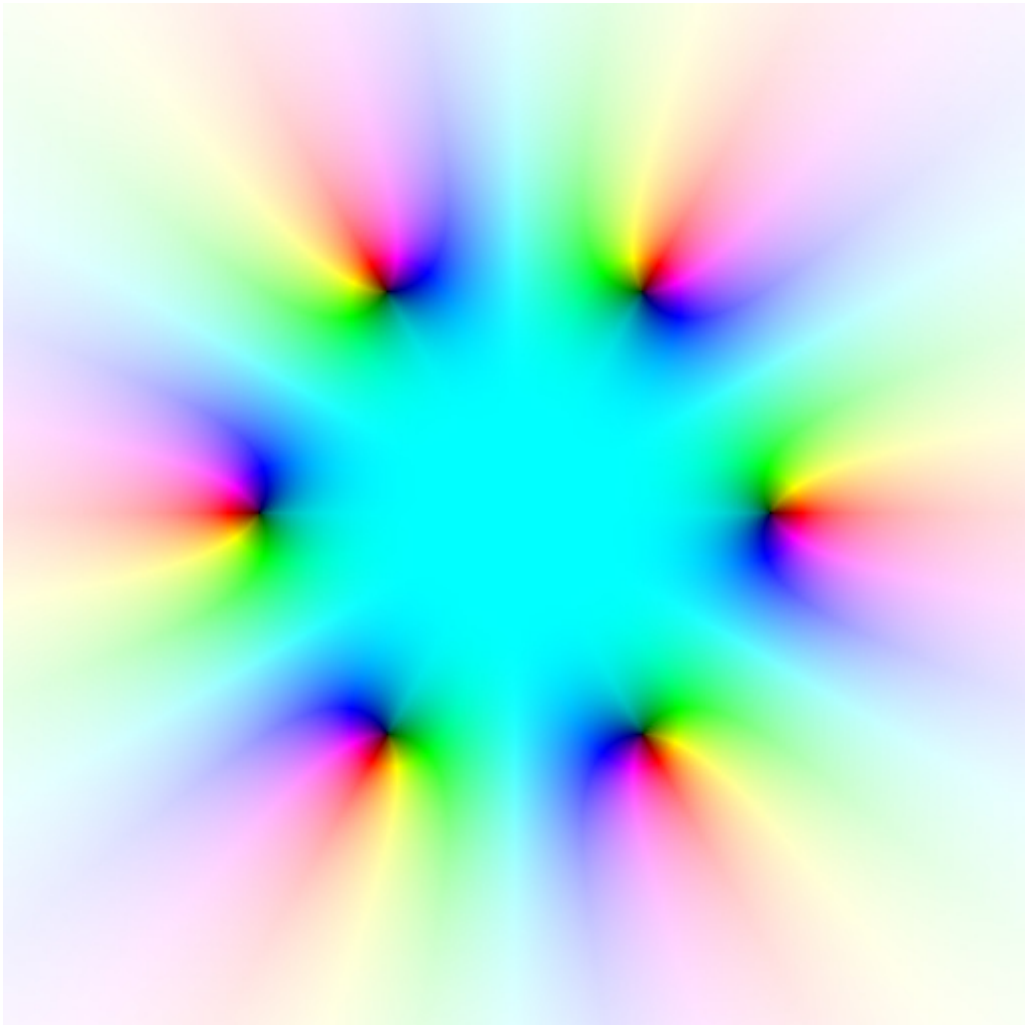
$f(z) = z^4 - z$



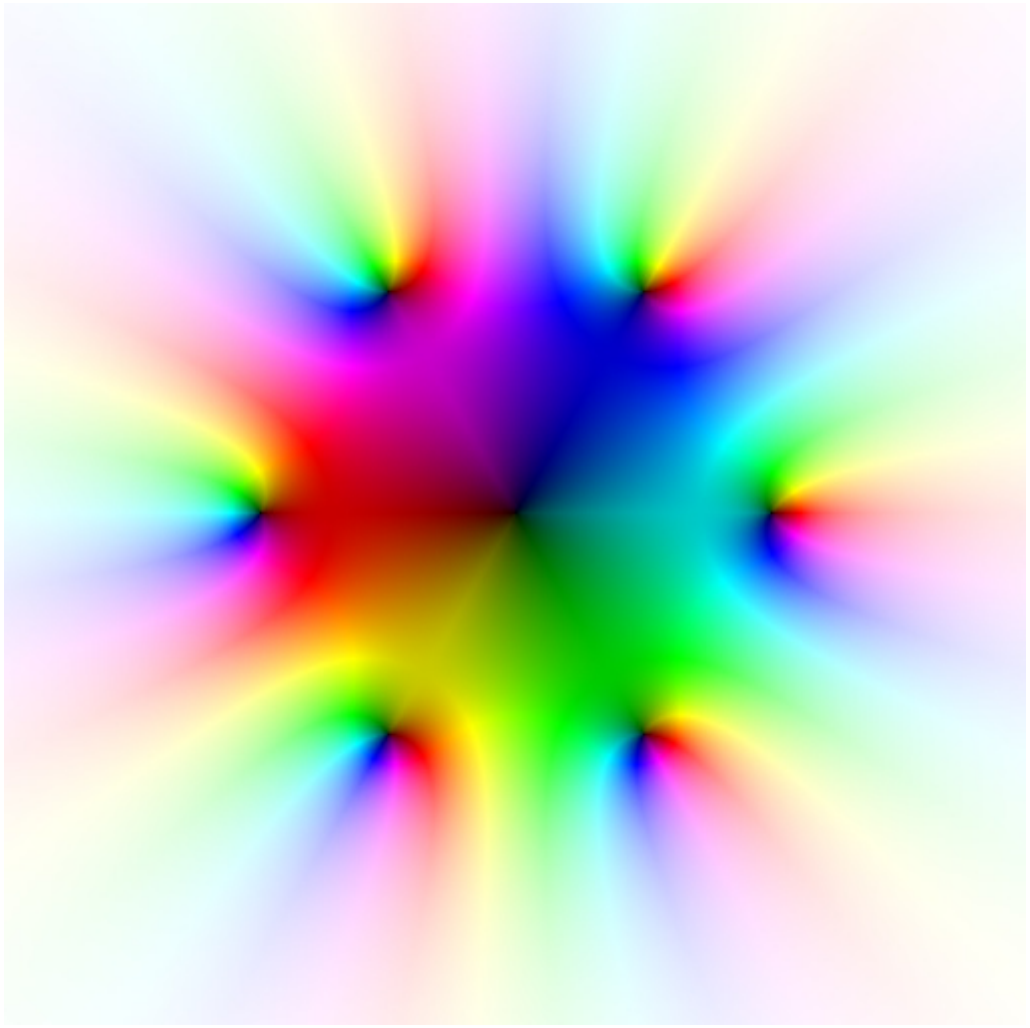
$f(z) = ?$



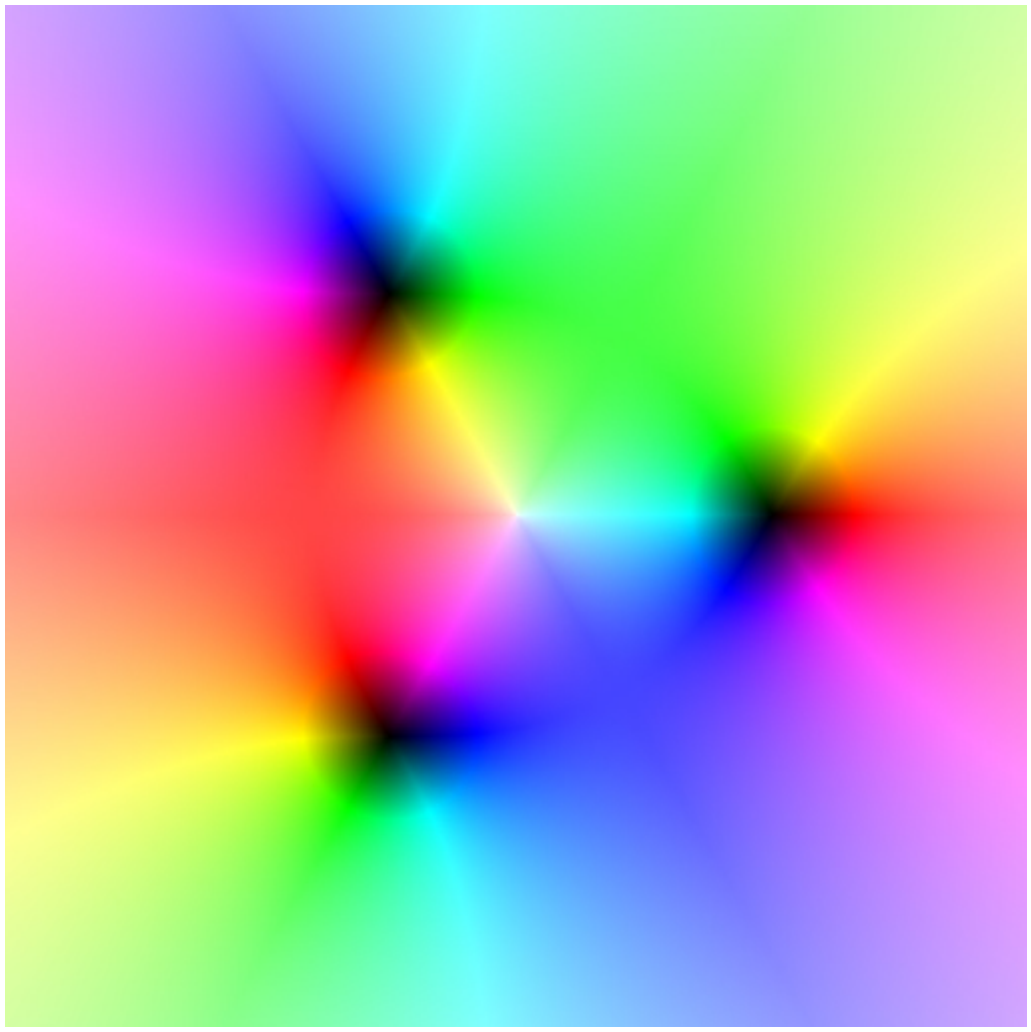
$f(z) = ?$



$f(z) = z^6 - 1$

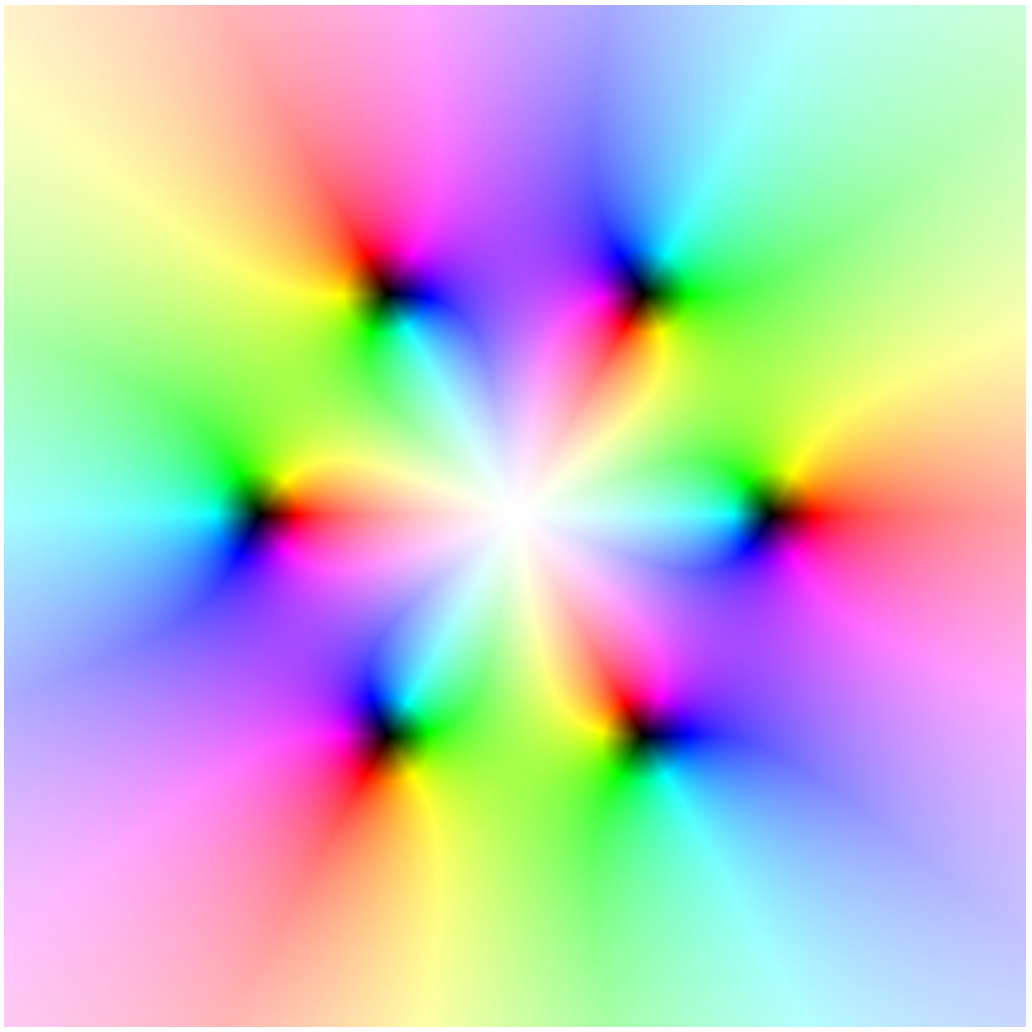


$f(z) = z^7 - z$



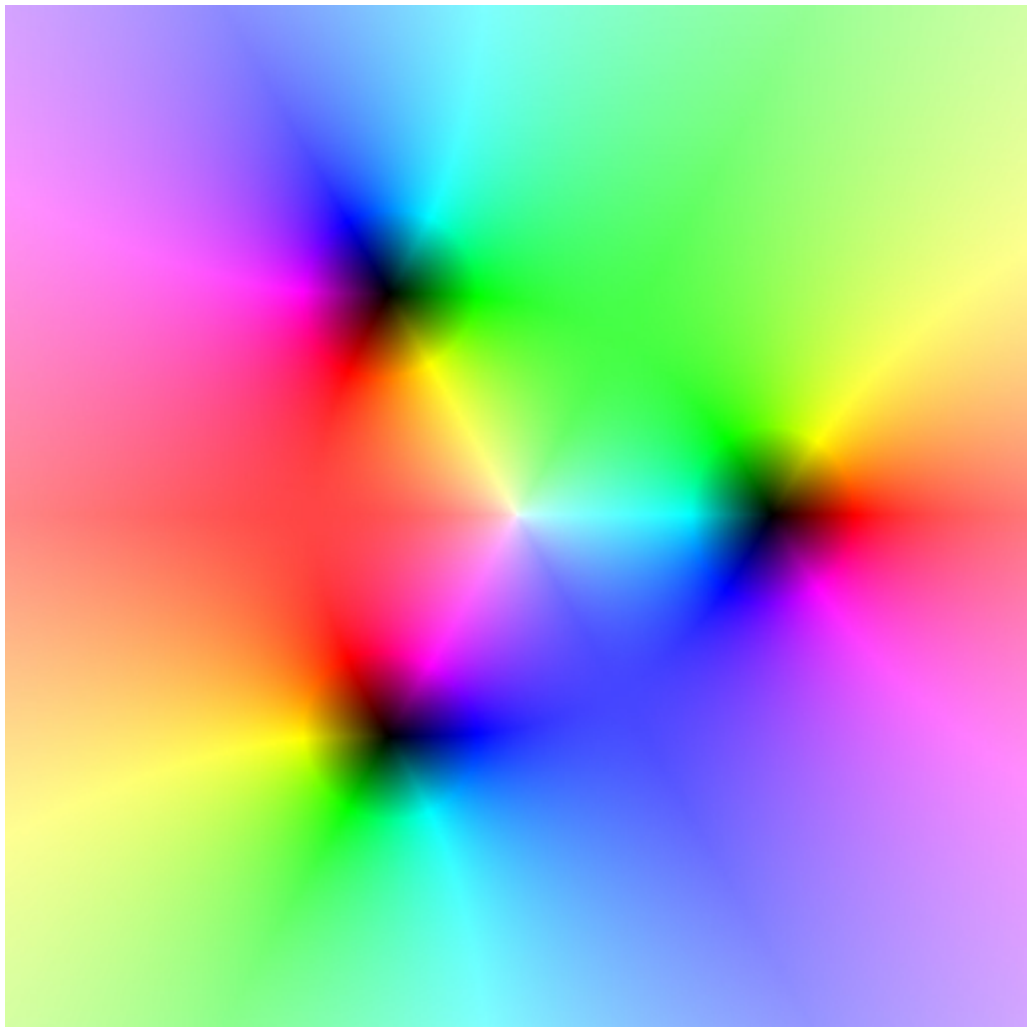
$f(z) = ?$

простой полюс в $z = 0$



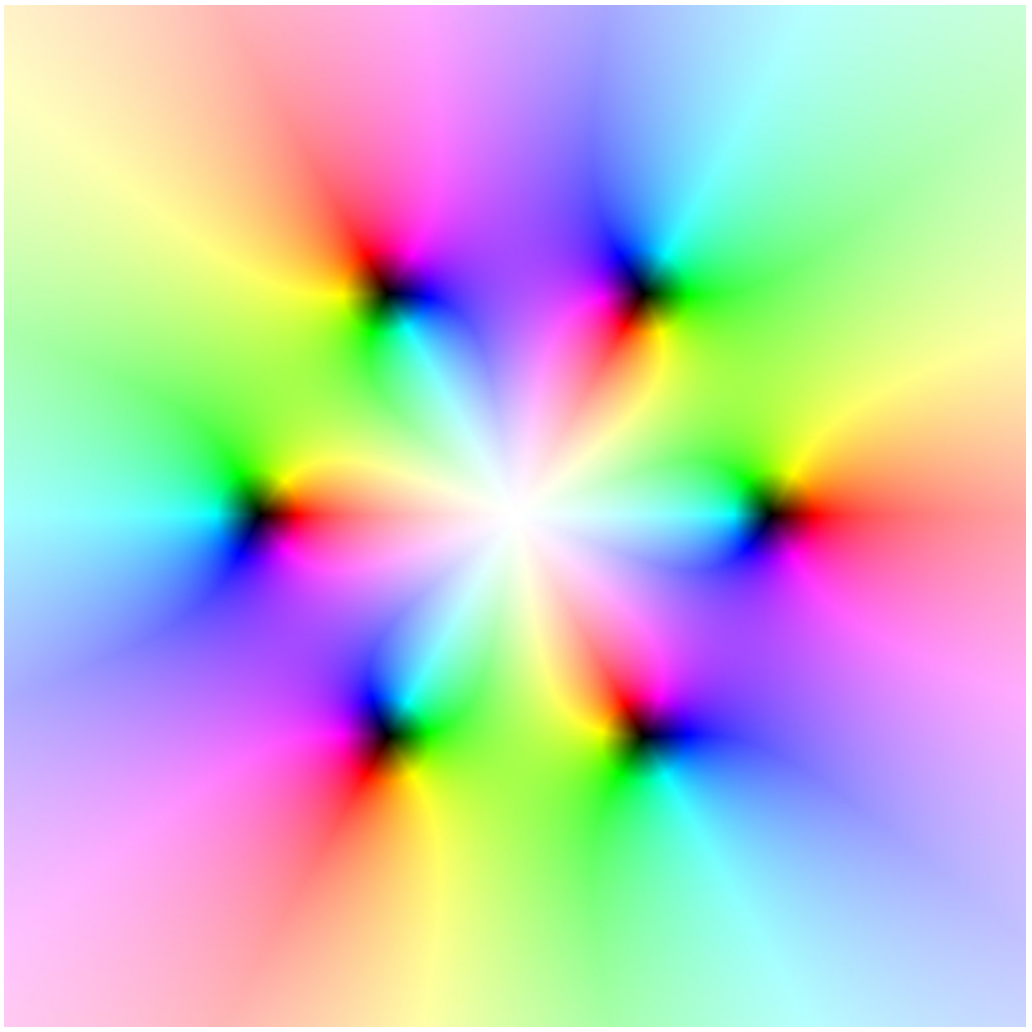
$f(z) = ?$

тройной полюс в $z = 0$



$f(z) = z^2 - z^{-1}$

простой полюс в $z = 0$

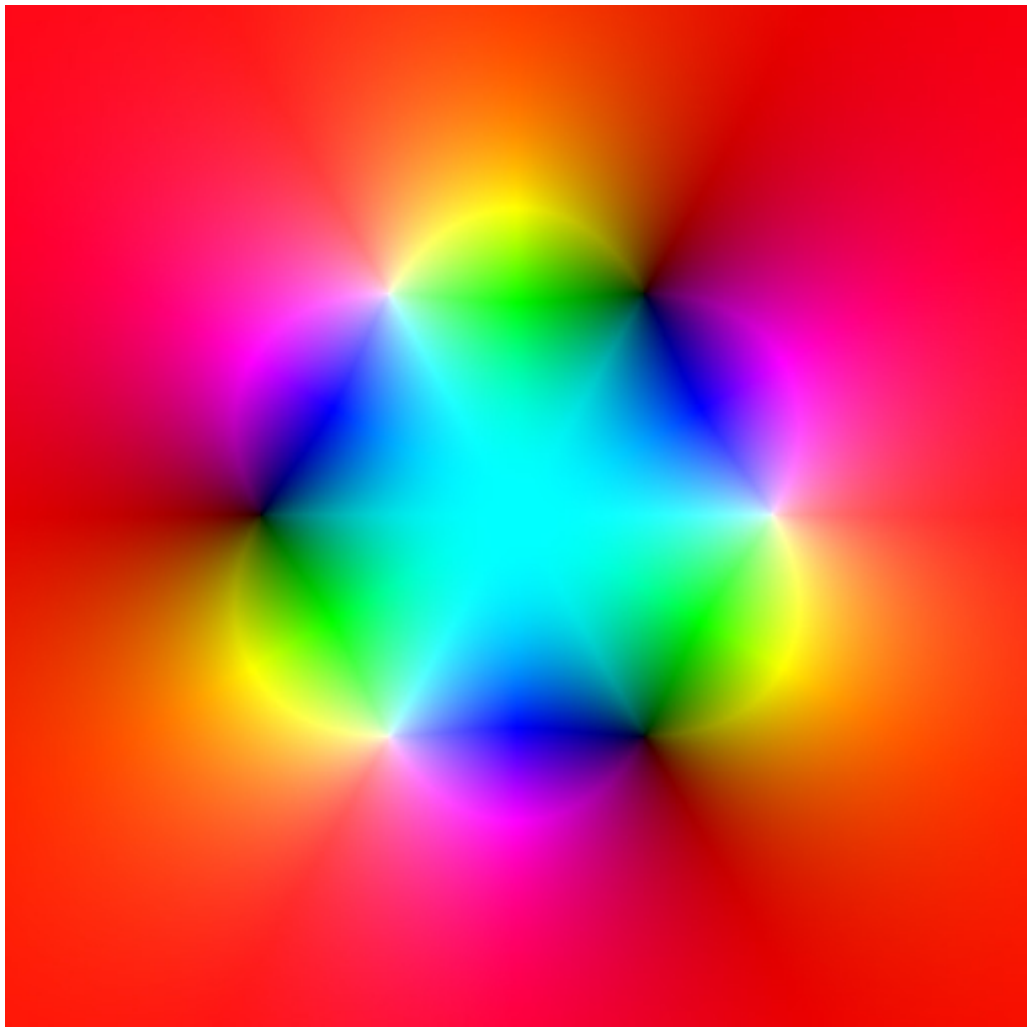


$f(z) = z^3 - z^{-3}$

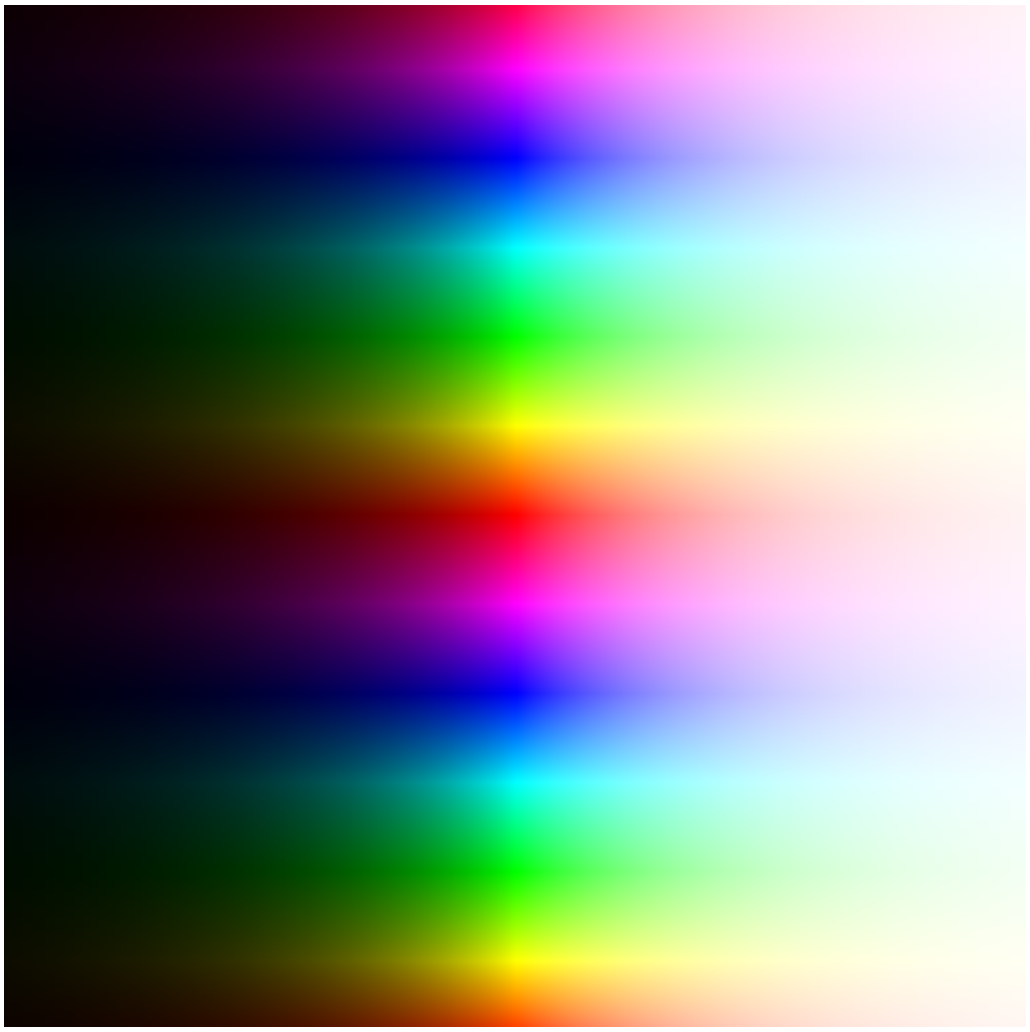
тройной полюс в $z = 0$

$f(z) = \frac{1}{2}(z^5 - z^{-5})$

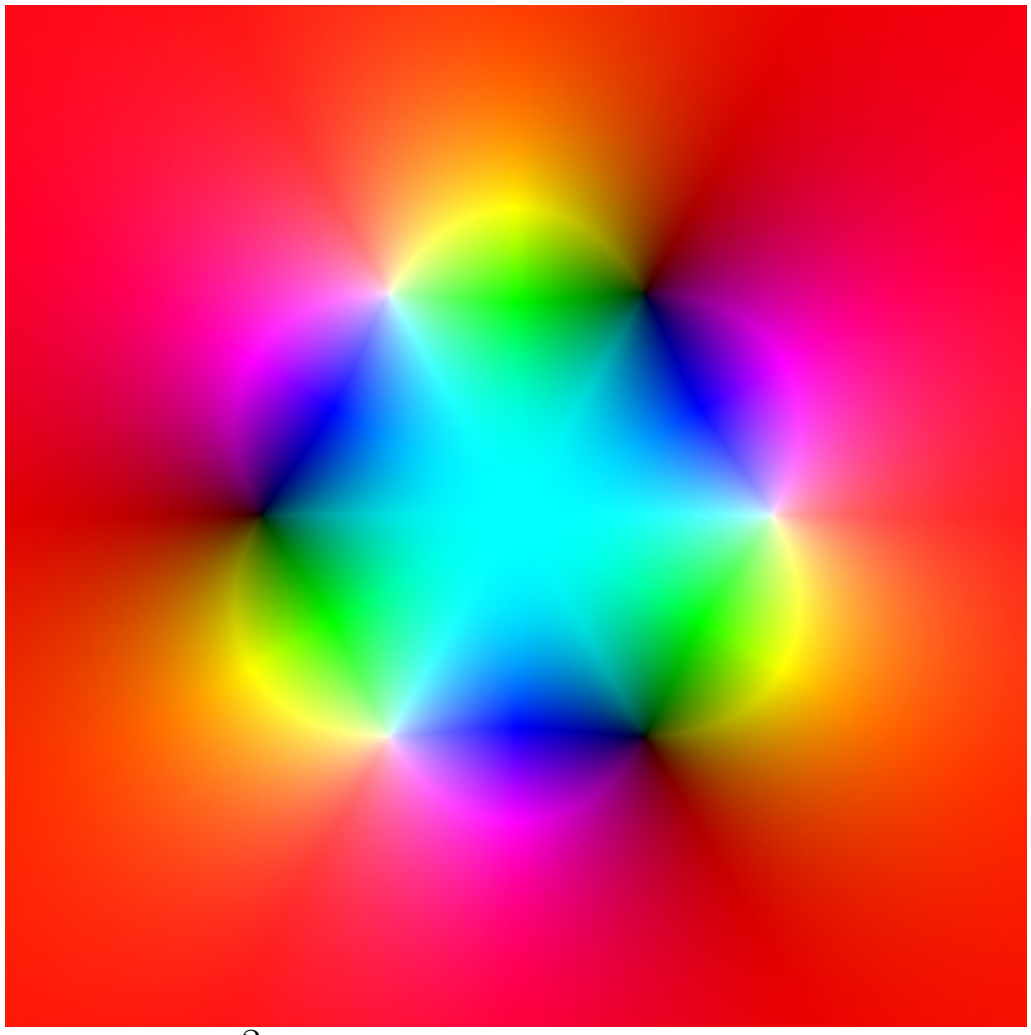
$f(z) = \frac{1}{10}(z^5 - z^{-5})$



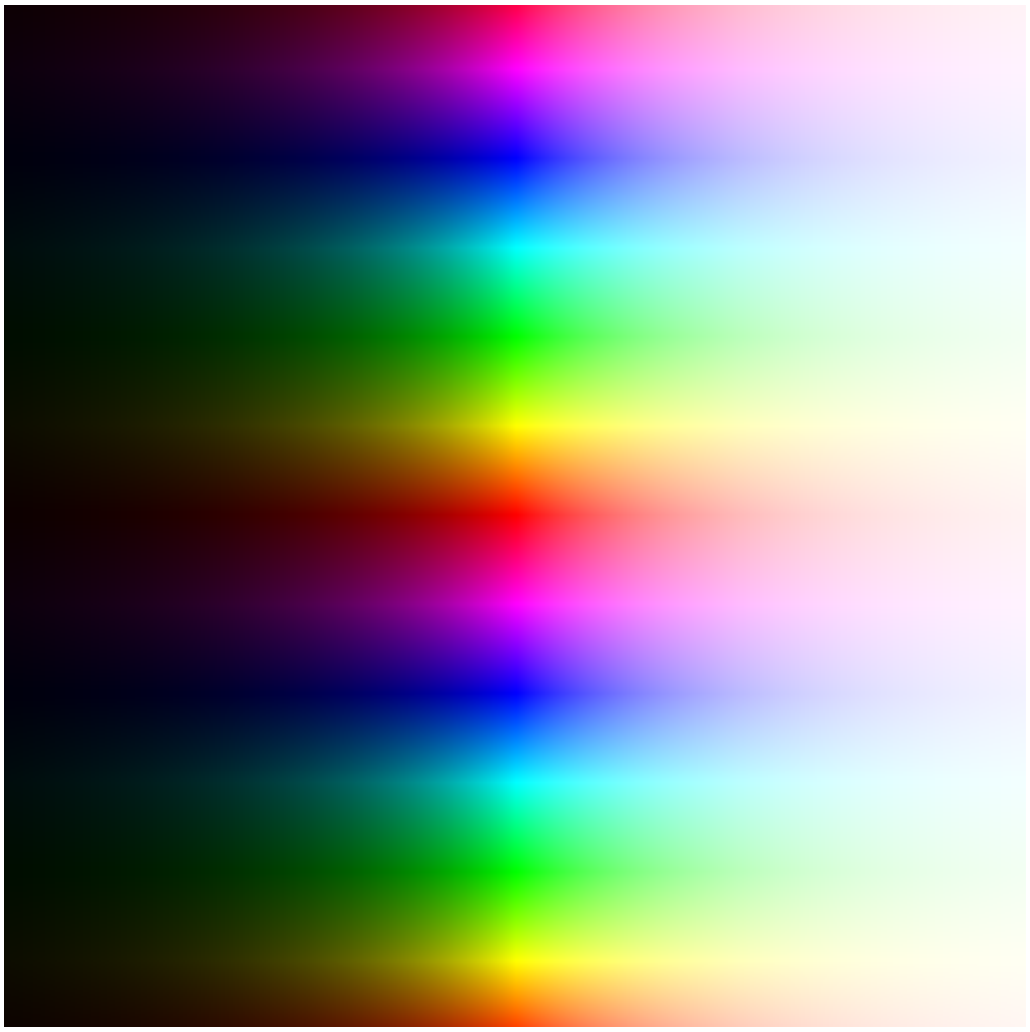
$f(z) = ?$



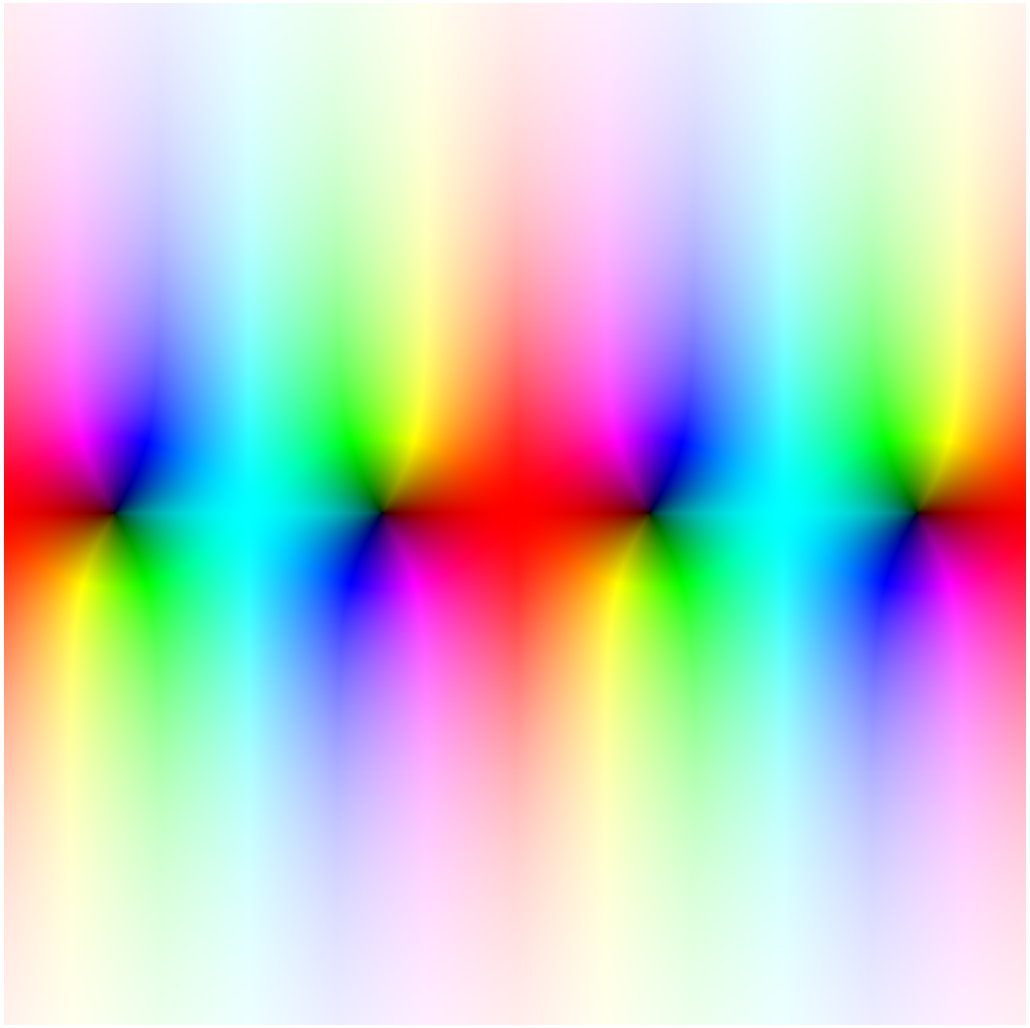
$f(z) = ?$



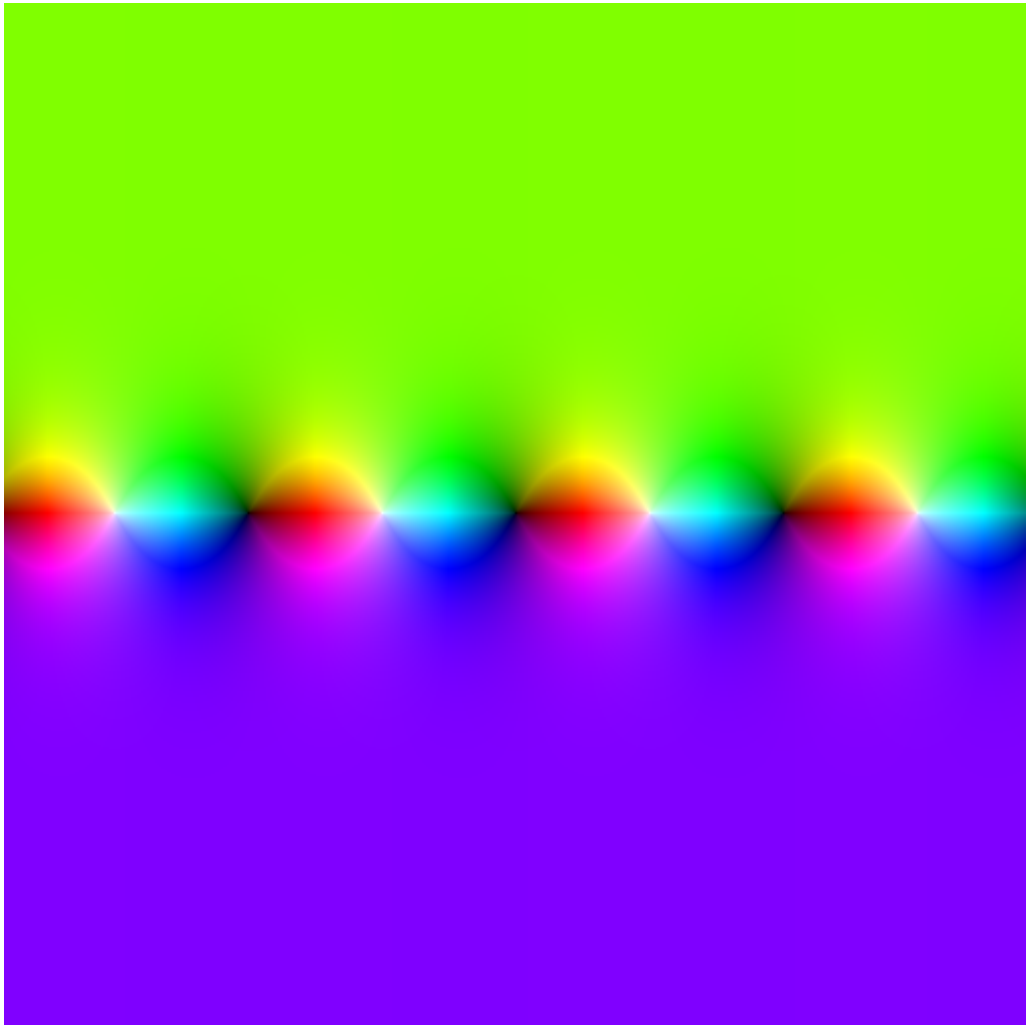
$f(z) = \frac{z^3+1}{z^3-1}$



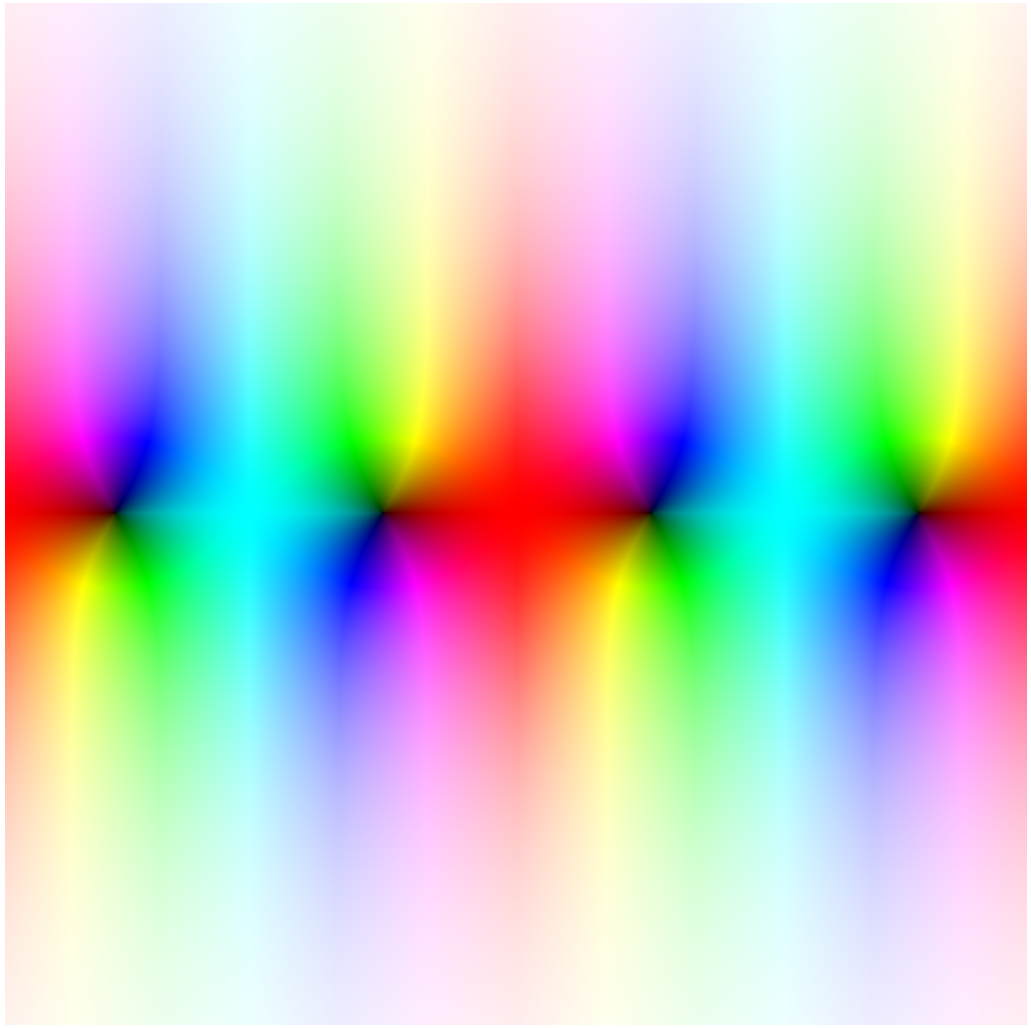
$f(z) = \exp(3z)$



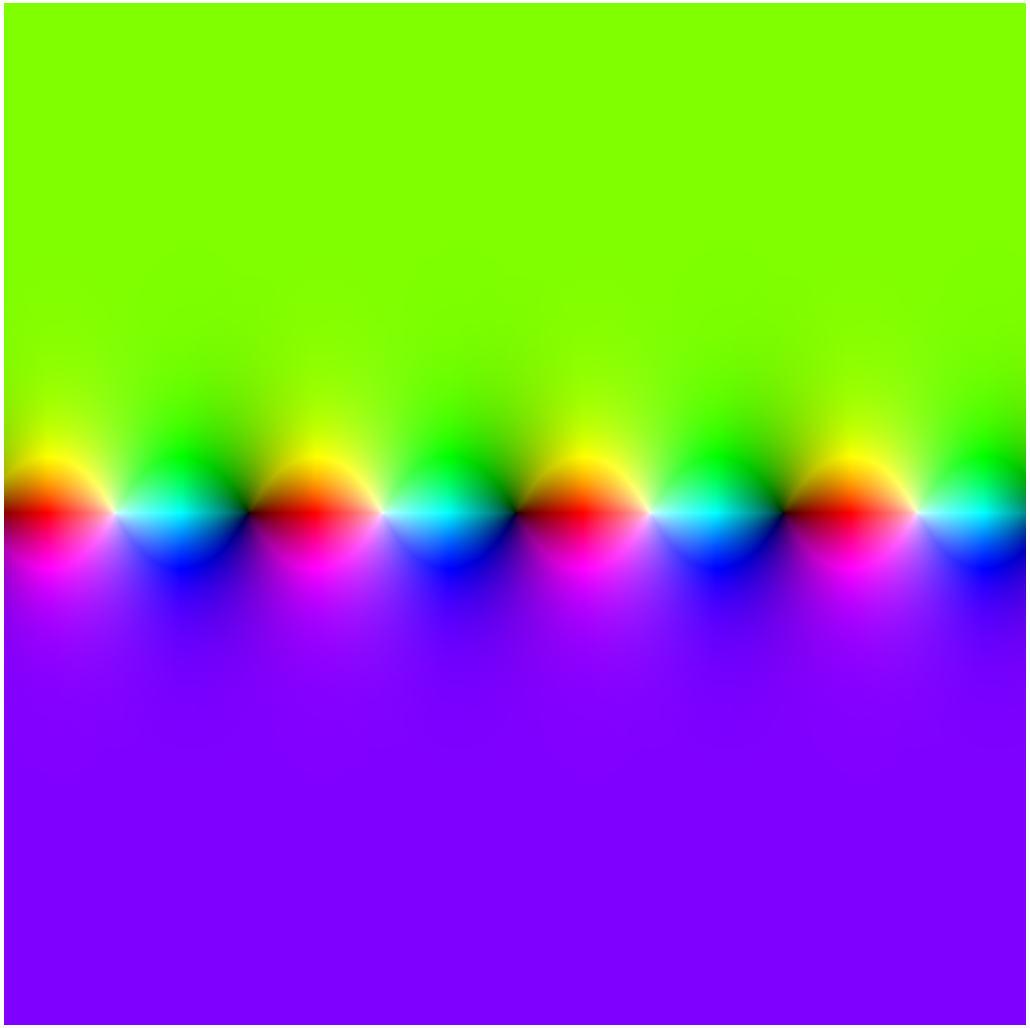
$f(z) = ?$



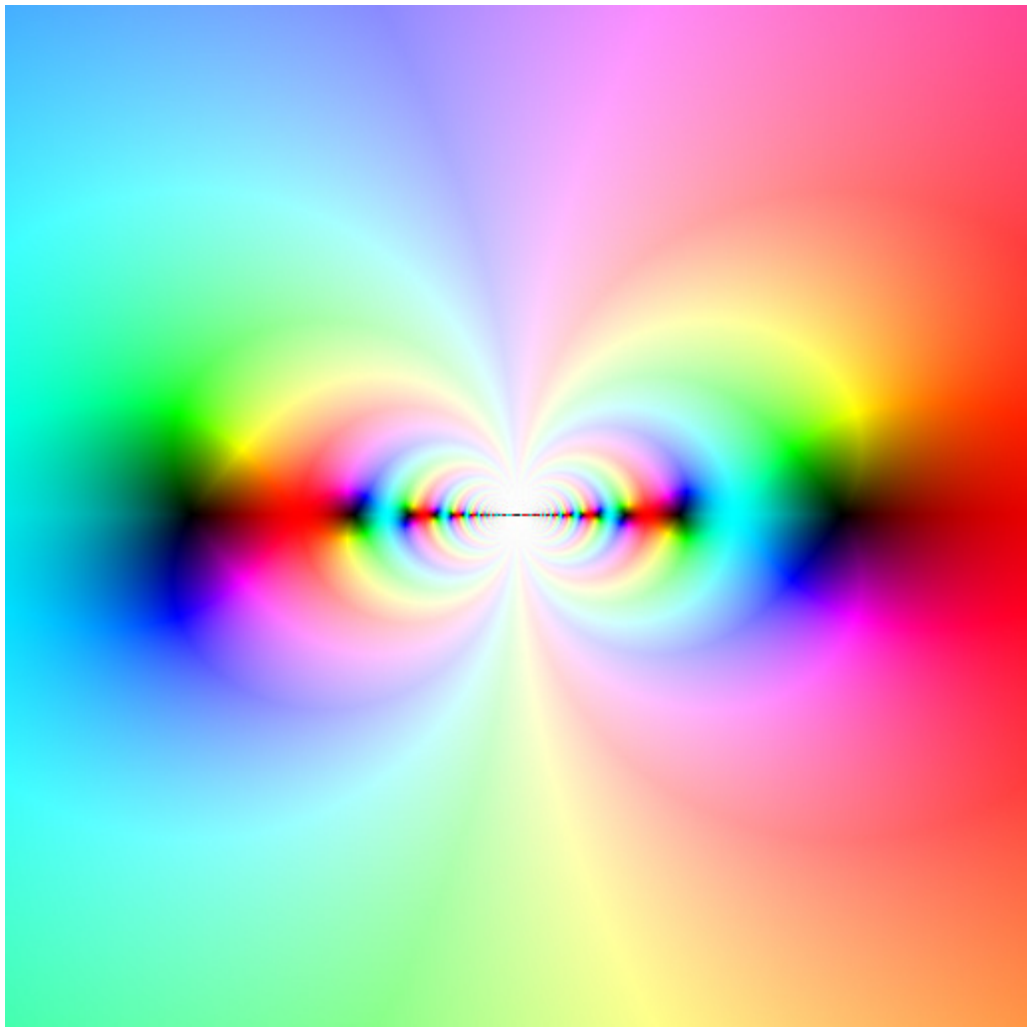
$f(z) = ?$



$f(z) = \cos(3z)$

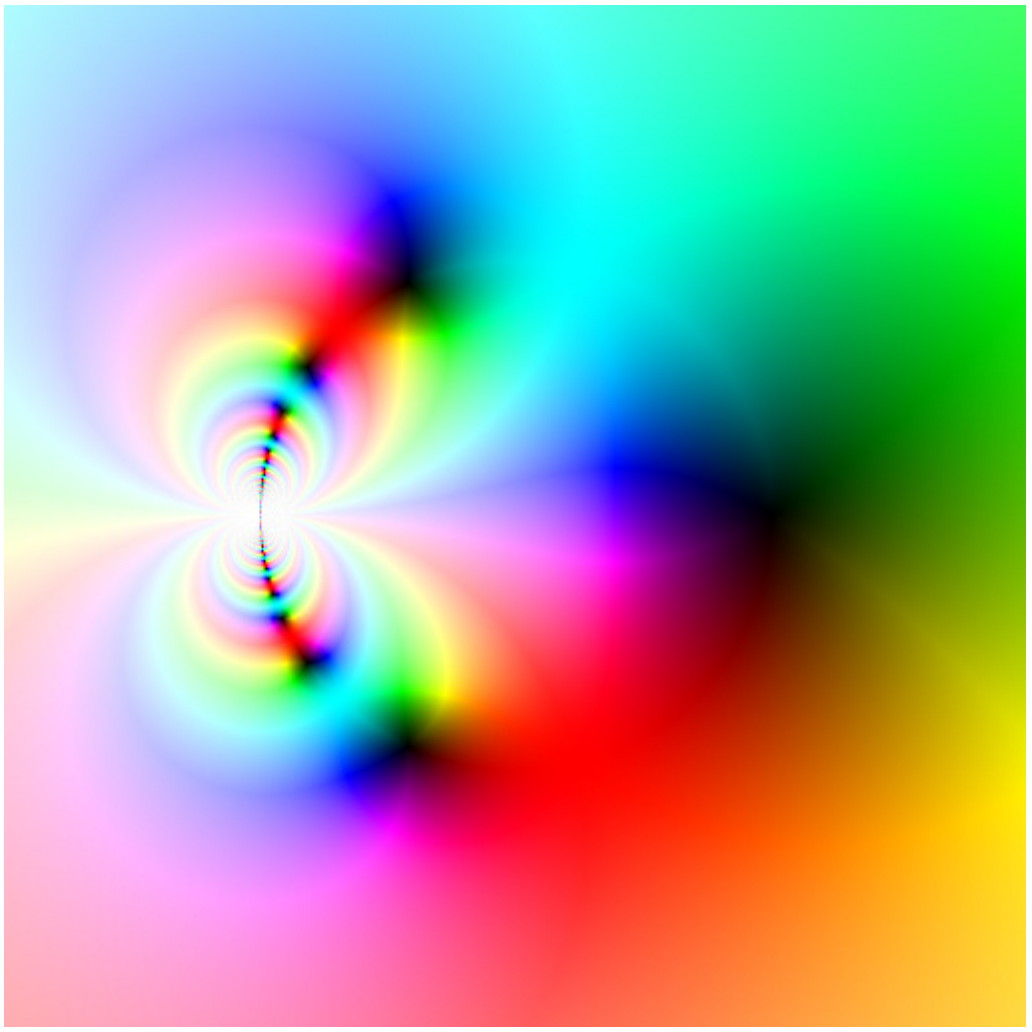


$f(z) = \mathrm{tg}(3z)$

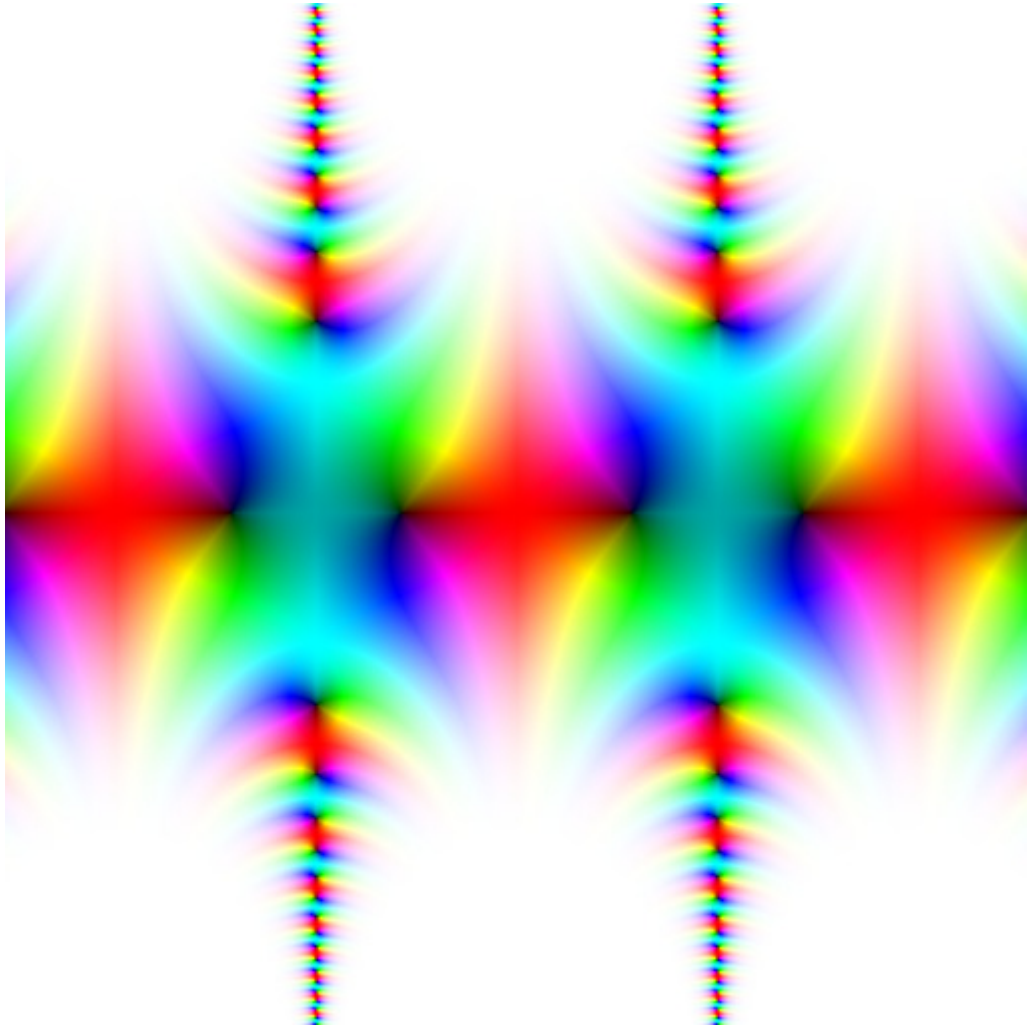


$f(z) = \sin(\frac{8}{z})$

существенная особенность в $z = 0$



$f(z) = \sin(2i\frac{z-1}{z+1})$



$f(z) = \cos(2\sin(2z))$