f(z)	z = u + 1/u + 2	order of u
\overline{z}	$(u+1)^2/u$	1
z+1	$(u^2 + u + 1)/u$	3
$z^2 + z + 1$	$(u^4 + u^3 + u^2 + u + 1)/u^2$	5