

$\alpha/m(z)$	$f(x, \alpha)$	$N(f(x, \alpha))$
$\sqrt{2}$	$x^2 + (1 + 2\sqrt{2})x + 2 + \sqrt{2}$ $= (x + \sqrt{2})(x + \sqrt{2} + 1)$	$x^4 + 2x^3 - 3x^2 - 4x - 2$ $= (x^2 - 2)(x^2 + 2x - 1)$
$\sqrt{2}$	$x^2 - 2 = (x - \sqrt{2})(x + \sqrt{2})$	$x^4 - 4x^2 + 4 = (x^2 - 2)^2$
$\sqrt[4]{2}$	$x^2 - (\sqrt{2} + \sqrt[4]{2})x + \sqrt[4]{2}^3$ $= (x - \sqrt{2})(x - \sqrt[4]{2})$	$x^8 - 4x^6 + 2x^4 + 8x - 8$ $= (x^2 - 2)^2(x^4 - 2)$
$z^2 + z + 1$	$x^3 - zx^2 - zx - z - 1$ $= (x + z + 1)(x - z)(x - z - 1)$	$x^6 + x^5 + 2x^4 + x^3 + 2x^2 + x + 1$ $= (x^2 + x + 1)^2(x^2 - x + 1)$