The eliminant of two two - dimensional cubic splines with a common point

Soumadeep Ghosh

Kolkata, India

Abstract

In this paper, I describe the eliminant of two two - dimensional cubic splines with a common point.
The paper ends with "The End"

Introduction

The general two - dimensional cubic spline is

$$x(t) = at^3 + bt^2 + ct + d$$

$$y(t) = et^3 + ft^2 + gt + h$$

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The eliminant of two two - dimensional cubic splines

$$x(t) = at^3 + bt^2 + ct + d$$

$$y(t) = et^3 + ft^2 + gt + h$$

and

$$\xi(t) = \alpha t^3 + \beta t^2 + \chi t + \delta$$

$$\psi(t) = \epsilon t^3 + \phi t^2 + \gamma t + \eta$$

such that

$$x(t) = \xi(t) \wedge y(t) = \psi(t)$$

is

$$-d^3e^3 + cd^2e^2f - bd^2ef^2 + ad^2f^3 - c^2de^2g + 2bd^2e^2g + bcdefg - 3ad^2efg - acdf^2g - b^2deg^2 + 2acdeg^2 + abdfg^2 - a^2dg^3 + c^3e^2h - 3bcde^2h + 3ad^2e^2h - bc^2efh + 2b^2defh + acdefh + ac^2f^2h - 2abdf^2h + b^2cegh - 2ac^2egh - abdegh - abcfgh + 3a^2dfgh + a^2cg^2h - b^3eh^2 + 3abceh^2 - 3a^2deh^2 + ab^2fh^2 - 2a^2cfh^2 - a^2bgh^2 + a^3h^3 - d^2f^3\alpha + 3d^2efg\alpha + cdf^2g\alpha - 2cdeg^2\alpha - bdfg^2\alpha + 2adg^3\alpha - 3d^2e^2h\alpha - cdefh\alpha - c^2f^2h\alpha + 2bdf^2h\alpha + 2c^2egh\alpha + bdegh\alpha + bcfgh\alpha - 6adfgh\alpha - 2acg^2h\alpha - 3bceh^2\alpha + 6adeh^2\alpha - b^2fh^2\alpha + 4acfh^2\alpha + 2abgh^2\alpha - 3a^2h^3\alpha - dg^3\alpha^2 + 3dfgh\alpha^2 + cg^2h\alpha^2 - 3deh^2\alpha^2 - 2cfh^2\alpha^2 - bgh^2\alpha^2 + 3ah^3\alpha^2 - h^3\alpha^3 + d^2ef^2\beta - 2d^2e^2g\beta - cdefg\beta + 2bdeg^2\beta - adfg^2\beta + 3cde^2h\beta + c^2efh\beta - 4bdefh\beta + 2adf^2h\beta - 2bcegh\beta + adegh\beta + acfgh\beta + 3b^2eh^2\beta - 3aceh^2\beta - 2abfh^2\beta + a^2gh^2\beta + dfg^2\alpha\beta - 2df^2h\alpha\beta - degh\alpha\beta - cfgh\alpha\beta + 3ceh^2\alpha\beta + 2bfh^2\alpha\beta - 2agh^2\alpha\beta + gh^2\alpha^2\beta - deg^2\beta^2 + 2defh\beta^2 + cegh\beta^2 - 3beh^2\beta^2 + afh^2\beta^2 - fh^2\alpha\beta^2 + eh^2\beta^3 + c^2de^2\gamma - 2bd^2e^2\gamma - bcdef\gamma + 3ad^2ef\gamma + acdf^2\gamma + 2b^2deg\gamma - 4acdeg\gamma - 2abdfg\gamma + 3a^2dg^2\gamma - b^2ceh\gamma + 2ac^2eh\gamma + abdeh\gamma + abcfh\gamma - 3a^2dfh\gamma - 2a^2cgh\gamma + a^2bh^2\gamma - 3d^2ef\alpha\gamma - cdf^2\alpha\gamma + 4cdeg\alpha\gamma + 2bdfg\alpha\gamma - 6adg^2\alpha\gamma - 2c^2eh\alpha\gamma - bdeh\alpha\gamma - bcfh\alpha\gamma + 6adfh\alpha\gamma + 4acgh\alpha\gamma - 2abh^2\alpha\gamma + 3dg^2\alpha^2\gamma - 3dfh\alpha^2\gamma - 2cgh\alpha^2\gamma + bh^2\alpha^2\gamma + 2d^2e^2\beta\gamma + cdef\beta\gamma - 4bdeg\beta\gamma + 2adfg\beta\gamma + 2bceh\beta\gamma - adeh\beta\gamma - acfh\beta\gamma - a^2h^2\beta\gamma - 2dfg\alpha\beta\gamma + deh\alpha\beta\gamma + cfh\alpha\beta\gamma + 2ah^2\alpha\beta\gamma -$$

$$h^2\alpha^2\beta\gamma + 2deg\beta^2\gamma - ceh\beta^2\gamma - b^2de\gamma^2 + 2acde\gamma^2 + abdf\gamma^2 - 3a^2dg\gamma^2 + a^2ch\gamma^2 - 2cde\alpha\gamma^2 - bdf\alpha\gamma^2 + 6adg\alpha\gamma^2 - 2ach\alpha\gamma^2 - 3dg\alpha^2\gamma^2 + ch\alpha^2\gamma^2 + 2bde\beta\gamma^2 - adf\beta\gamma^2 + df\alpha\beta\gamma^2 - de\beta^2\gamma^2 + a^2d\gamma^3 - 2ad\alpha\gamma^3 + d\alpha^2\gamma^3 + 3d^2e^3\delta - 2cde^2f\delta + 2bdef^2\delta - 2adf^3\delta + c^2e^2g\delta - 4bde^2g\delta - bcefg\delta + 6adefg\delta + acf^2g\delta + b^2eg^2\delta - 2aceg^2\delta - abfg^2\delta + a^2g^3\delta + 3bce^2h\delta - 6ade^2h\delta - 2b^2efh\delta - acefh\delta + 2abf^2h\delta + abegh\delta - 3a^2fgh\delta + 3a^2eh^2\delta + 2df^3\alpha\delta - 6defg\alpha\delta - cf^2g\alpha\delta + 2ceg^2\alpha\delta + bfg^2\alpha\delta - 2ag^3\alpha\delta + 6de^2h\alpha\delta + cefh\alpha\delta - 2bf^2h\alpha\delta - begh\alpha\delta + 6afgh\alpha\delta - 6aeh^2\alpha\delta + g^3\alpha^2\delta - 3fgh\alpha^2\delta + 3eh^2\alpha^2\delta - 2def^2\beta\delta + 4de^2g\beta\delta + cefg\beta\delta - 2beg^2\beta\delta + afg^2\beta\delta - 3ce^2h\beta\delta + 4befh\beta\delta - 2af^2h\beta\delta - aegh\beta\delta - fg^2\alpha\beta\delta + 2f^2h\alpha\beta\delta + egh\alpha\beta\delta + eg^2\beta^2\delta - 2efh\beta^2\delta - c^2e^2\gamma\delta + 4bde^2\gamma\delta + bcef\gamma\delta - 6adef\gamma\delta - acf^2\gamma\delta - 2b^2eg\gamma\delta + 4aceg\gamma\delta + 2abfg\gamma\delta - 3a^2g^2\gamma\delta - abeh\gamma\delta + 3a^2fh\gamma\delta + 6def\alpha\gamma\delta + cf^2\alpha\gamma\delta - 4ceg\alpha\gamma\delta - 2bfg\alpha\gamma\delta + 6ag^2\alpha\gamma\delta + beh\alpha\gamma\delta - 6afh\alpha\gamma\delta - 3g^2\alpha^2\gamma\delta + 3fh\alpha^2\gamma\delta - 4de^2\beta\gamma\delta - cef\beta\gamma\delta + 4beg\beta\gamma\delta - 2afg\beta\gamma\delta + aeh\beta\gamma\delta + 2fg\alpha\beta\gamma\delta - eh\alpha\beta\gamma\delta - 2eg\beta^2\gamma\delta + b^2e\gamma^2\delta - 2ace\gamma^2\delta - abf\gamma^2\delta + 3a^2g\gamma^2\delta + 2ce\alpha\gamma^2\delta + bf\alpha\gamma^2\delta - 6ag\alpha\gamma^2\delta + 3g\alpha^2\gamma^2\delta - 2be\beta\gamma^2\delta + af\beta\gamma^2\delta - f\alpha\beta\gamma^2\delta + e\beta^2\gamma^2\delta - a^2\gamma^3\delta + 2a\alpha\gamma^3\delta - \alpha^2\gamma^3\delta - 3de^3\delta^2 + ce^2f\delta^2 - bef^2\delta^2 + af^3\delta^2 + 2be^2g\delta^2 - 3aefg\delta^2 + 3ae^2h\delta^2 - f^3\alpha\delta^2 + 3efg\alpha\delta^2 - 3e^2h\alpha\delta^2 + ef^2\beta\delta^2 - 2e^2g\beta\delta^2 - 2be^2\gamma\delta^2 + 3aef\gamma\delta^2 - 3ef\alpha\gamma\delta^2 + 2e^2\beta\gamma\delta^2 + e^3\delta^3 + 3d^3e^2\epsilon - 2cd^2ef\epsilon + bd^2f^2\epsilon + 2c^2deg\epsilon - 4bd^2eg\epsilon - bcdfg\epsilon + 3ad^2fg\epsilon + b^2dg^2\epsilon - 2acdg^2\epsilon - 2c^3eh\epsilon + 6bcdeh\epsilon - 6ad^2eh\epsilon + bc^2fh\epsilon - 2b^2dfh\epsilon - acdfh\epsilon - b^2cgh\epsilon + 2ac^2gh\epsilon + abdgh\epsilon + b^3h^2\epsilon - 3abch^2\epsilon + 3a^2dh^2\epsilon - 3d^2fg\alpha\epsilon + 2cdg^2\alpha\epsilon + 6d^2eh\alpha\epsilon + cdfh\alpha\epsilon - 2c^2gh\alpha\epsilon - bdgh\alpha\epsilon + 3bch^2\alpha\epsilon - 6adh^2\alpha\epsilon + 3dh^2\alpha^2\epsilon - d^2f^2\beta\epsilon + 4d^2eg\beta\epsilon + cdfg\beta\epsilon - 2bdg^2\beta\epsilon - 6cdeh\beta\epsilon - c^2fh\beta\epsilon + 4bdfh\beta\epsilon + 2bcgh\beta\epsilon - adgh\beta\epsilon - 3b^2h^2\beta\epsilon + 3ach^2\beta\epsilon + dgh\alpha\beta\epsilon - 3ch^2\alpha\beta\epsilon + dg^2\beta^2\epsilon - 2dfh\beta^2\epsilon - cgh\beta^2\epsilon + 3bh^2\beta^2\epsilon - h^2\beta^3\epsilon - 2c^2de\gamma\epsilon + 4bd^2e\gamma\epsilon + bcdf\gamma\epsilon - 3ad^2f\gamma\epsilon - 2b^2dg\gamma\epsilon + 4acdg\gamma\epsilon + b^2ch\gamma\epsilon - 2ac^2h\gamma\epsilon - abdh\gamma\epsilon + 3d^2f\alpha\gamma\epsilon - 4cdg\alpha\gamma\epsilon + 2c^2h\alpha\gamma\epsilon + bdh\alpha\gamma\epsilon - 4d^2e\beta\gamma\epsilon - cdf\beta\gamma\epsilon + 4bdg\beta\gamma\epsilon - 2bch\beta\gamma\epsilon + adh\beta\gamma\epsilon - dh\alpha\beta\gamma\epsilon - 2dg\beta^2\gamma\epsilon + ch\beta^2\gamma\epsilon + b^2d\gamma^2\epsilon - 2acd\gamma^2\epsilon + 2cd\alpha\gamma^2\epsilon - 2bd\beta\gamma^2\epsilon + d\beta^2\gamma^2\epsilon - 9d^2e^2\delta\epsilon + 4cdef\delta\epsilon - 2bdf^2\delta\epsilon - 2c^2eg\delta\epsilon + 8bdeg\delta\epsilon + bcfg\delta\epsilon - 6adfg\delta\epsilon - b^2g^2\delta\epsilon + 2acg^2\delta\epsilon - 6bceh\delta\epsilon + 12adeh\delta\epsilon + 2b^2fh\delta\epsilon + acfh\delta\epsilon - abgh\delta\epsilon - 3a^2h^2\delta\epsilon + 6dfg\alpha\delta\epsilon - 2cg^2\alpha\delta\epsilon - 12deh\alpha\delta\epsilon - cfh\alpha\delta\epsilon + bgh\alpha\delta\epsilon + 6ah^2\alpha\delta\epsilon - 3h^2\alpha^2\delta\epsilon + 2df^2\beta\delta\epsilon - 8deg\beta\delta\epsilon - cfg\beta\delta\epsilon + 2bg^2\beta\delta\epsilon + 6ceh\beta\delta\epsilon - 4bfh\beta\delta\epsilon + agh\beta\delta\epsilon - gh\alpha\beta\delta\epsilon - g^2\beta^2\delta\epsilon + 2fh\beta^2\delta\epsilon + 2c^2e\gamma\delta\epsilon - 8bde\gamma\delta\epsilon - bcf\gamma\delta\epsilon + 6adf\gamma\delta\epsilon + 2b^2g\gamma\delta\epsilon - 4acg\gamma\delta\epsilon + abh\gamma\delta\epsilon - 6df\alpha\gamma\delta\epsilon + 4cg\alpha\gamma\delta\epsilon - bh\alpha\gamma\delta\epsilon + 8de\beta\gamma\delta\epsilon + cf\beta\gamma\delta\epsilon - 4bg\beta\gamma\delta\epsilon - ah\beta\gamma\delta\epsilon + h\alpha\beta\gamma\delta\epsilon + 2g\beta^2\gamma\delta\epsilon - b^2\gamma^2\delta\epsilon + 2ac\gamma^2\delta\epsilon - 2c\alpha\gamma^2\delta\epsilon + 2b\beta\gamma^2\delta\epsilon - \beta^2\gamma^2\delta\epsilon + 9de^2\delta^2\epsilon - 2cef\delta^2\epsilon + bf^2\delta^2\epsilon - 4beg\delta^2\epsilon + 3afg\delta^2\epsilon - 6aeh\delta^2\epsilon - 3fg\alpha\delta^2\epsilon + 6eh\alpha\delta^2\epsilon - f^2\beta\delta^2\epsilon + 4eg\beta\delta^2\epsilon + 4be\gamma\delta^2\epsilon - 3af\gamma\delta^2\epsilon + 3f\alpha\gamma\delta^2\epsilon - 4e\beta\gamma\delta^2\epsilon - 3e^2\delta^3\epsilon - 3d^3e\epsilon^2 + cd^2f\epsilon^2 - c^2dg\epsilon^2 + 2bd^2g\epsilon^2 + c^3h\epsilon^2 - 3bcdh\epsilon^2 + 3ad^2h\epsilon^2 - 3d^2h\alpha\epsilon^2 - 2d^2g\beta\epsilon^2 + 3cdh\beta\epsilon^2 + c^2d\gamma\epsilon^2 - 2bd^2\gamma\epsilon^2 + 2d^2\beta\gamma\epsilon^2 + 9d^2e\delta\epsilon^2 - 2cdf\delta\epsilon^2 + c^2g\delta\epsilon^2 - 4bdg\delta\epsilon^2 + 3bch\delta\epsilon^2 - 6adh\delta\epsilon^2 + 6dh\alpha\delta\epsilon^2 + 4dg\beta\delta\epsilon^2 - 3ch\beta\delta\epsilon^2 - c^2\gamma\delta\epsilon^2 + 4bd\gamma\delta\epsilon^2 - 4d\beta\gamma\delta\epsilon^2 - 9de\delta^2\epsilon^2 + cf\delta^2\epsilon^2 + 2bg\delta^2\epsilon^2 + 3ah\delta^2\epsilon^2 - 3h\alpha\delta^2\epsilon^2 - 2g\beta\delta^2\epsilon^2 - 2b\gamma\delta^2\epsilon^2 + 2\beta\gamma\delta^2\epsilon^2 + 3e\delta^3\epsilon^2 + d^3\epsilon^3 - 3d^2\delta\epsilon^3 + 3d\delta^2\epsilon^3 - \delta^3\epsilon^3 - c^3e^2\eta + 3bcde^2\eta - 3ad^2e^2\eta + bc^2ef\eta - 2b^2def\eta - acdef\eta - ac^2f^2\eta + 2abdf^2\eta - b^2ceg\eta + 2ac^2eg\eta + abdeg\eta + abcfg\eta - 3a^2dfg\eta - a^2cg^2\eta + 2b^3eh\eta - 6abceh\eta + 6a^2deh\eta - 2ab^2fh\eta + 4a^2cfh\eta + 2a^2bgh\eta - 3a^3h^2\eta + 3d^2e^2\alpha\eta + cdef\alpha\eta + c^2f^2\alpha\eta - 2bdf^2\alpha\eta - 2c^2eg\alpha\eta - bdeg\alpha\eta - bcfg\alpha\eta + 6adfg\alpha\eta + 2acg^2\alpha\eta + 6bceh\alpha\eta - 12adeh\alpha\eta + 2b^2fh\alpha\eta - 8acfh\alpha\eta - 4abgh\alpha\eta + 9a^2h^2\alpha\eta - 3dfg\alpha^2\eta - cg^2\alpha^2\eta + 6deh\alpha^2\eta + 4cfh\alpha^2\eta + 2bgh\alpha^2\eta - 9ah^2\alpha^2\eta + 3h^2\alpha^3\eta - 3cde^2\beta\eta - c^2ef\beta\eta + 4bdef\beta\eta - 2adf^2\beta\eta + 2bceg\beta\eta - adeg\beta\eta - acfg\beta\eta - 6b^2eh\beta\eta + 6aceh\beta\eta + 4abfh\beta\eta - 2a^2gh\beta\eta + 2df^2\alpha\beta\eta + deg\alpha\beta\eta + cfg\alpha\beta\eta - 6ceh\alpha\beta\eta - 4bfh\alpha\beta\eta + 4agh\alpha\beta\eta - 2gh\alpha^2\beta\eta - 2def\beta^2\eta - ceg\beta^2\eta + 6beh\beta^2\eta - 2afh\beta^2\eta + 2fh\alpha\beta^2\eta - 2eh\beta^3\eta + b^2ce\gamma\eta - 2ac^2e\gamma\eta - abde\gamma\eta - abcf\gamma\eta + 3a^2df\gamma\eta + 2a^2cg\gamma\eta - 2a^2bh\gamma\eta + 2c^2e\alpha\gamma\eta + bde\alpha\gamma\eta + bcf\alpha\gamma\eta - 6adf\alpha\gamma\eta - 4acg\alpha\gamma\eta + 4abh\alpha\gamma\eta + 3df\alpha^2\gamma\eta + 2cg\alpha^2\gamma\eta - 2bh\alpha^2\gamma\eta - 2bce\beta\gamma\eta + ade\beta\gamma\eta + acf\beta\gamma\eta + 2a^2h\beta\gamma\eta - de\alpha\beta\gamma\eta - cf\alpha\beta\gamma\eta - 4ah\alpha\beta\gamma\eta + 2h\alpha^2\beta\gamma\eta + ce\beta^2\gamma\eta - a^2c\gamma^2\eta + 2ac\alpha\gamma^2\eta - c\alpha^2\gamma^2\eta - 3bce^2\delta\eta + 6ade^2\delta\eta + 2b^2ef\delta\eta + acef\delta\eta - 2abf^2\delta\eta - abeg\delta\eta + 3a^2fg\delta\eta - 6a^2eh\delta\eta - 6de^2\alpha\delta\eta - cef\alpha\delta\eta + 2bf^2\alpha\delta\eta + beg\alpha\delta\eta - 6afg\alpha\delta\eta + 12aeh\alpha\delta\eta + 3fg\alpha^2\delta\eta - 6eh\alpha^2\delta\eta + 3ce^2\beta\delta\eta - 4bef\beta\delta\eta + 2af^2\beta\delta\eta + aeg\beta\delta\eta - 2f^2\alpha\beta\delta\eta - eg\alpha\beta\delta\eta + 2ef\beta^2\delta\eta + abe\gamma\delta\eta - 3a^2f\gamma\delta\eta - be\alpha\gamma\delta\eta + 6af\alpha\gamma\delta\eta - 3f\alpha^2\gamma\delta\eta - ae\beta\gamma\delta\eta + e\alpha\beta\gamma\delta\eta - 3ae^2\delta^2\eta + 3e^2\alpha\delta^2\eta + 2c^3e\epsilon\eta - 6bcde\epsilon\eta + 6ad^2e\epsilon\eta - bc^2f\epsilon\eta + 2b^2df\epsilon\eta + acdf\epsilon\eta + b^2cg\epsilon\eta - 2ac^2g\epsilon\eta - abdg\epsilon\eta - 2b^3h\epsilon\eta + 6abch\epsilon\eta - 6a^2dh\epsilon\eta - 6d^2e\alpha\epsilon\eta - cdf\alpha\epsilon\eta + 2c^2g\alpha\epsilon\eta + bdg\alpha\epsilon\eta - 6bch\alpha\epsilon\eta + 12adh\alpha\epsilon\eta - 6dh\alpha^2\epsilon\eta + 6cde\beta\epsilon\eta + c^2f\beta\epsilon\eta - 4bdf\beta\epsilon\eta - 2bcg\beta\epsilon\eta + adg\beta\epsilon\eta + 6b^2h\beta\epsilon\eta - 6ach\beta\epsilon\eta - dg\alpha\beta\epsilon\eta + 6ch\alpha\beta\epsilon\eta + 2df\beta^2\epsilon\eta + cg\beta^2\epsilon\eta - 6bh\beta^2\epsilon\eta + 2h\beta^3\epsilon\eta - b^2c\gamma\epsilon\eta + 2ac^2\gamma\epsilon\eta + abd\gamma\epsilon\eta - 2c^2\alpha\gamma\epsilon\eta - bd\alpha\gamma\epsilon\eta + 2bc\beta\gamma\epsilon\eta - ad\beta\gamma\epsilon\eta + d\alpha\beta\gamma\epsilon\eta - c\beta^2\gamma\epsilon\eta + 6bce\delta\epsilon\eta - 12ade\delta\epsilon\eta - 2b^2f\delta\epsilon\eta - acf\delta\epsilon\eta + abg\delta\epsilon\eta + 6a^2h\delta\epsilon\eta + 12de\alpha\delta\epsilon\eta + cf\alpha\delta\epsilon\eta - bg\alpha\delta\epsilon\eta - 12ah\alpha\delta\epsilon\eta + 6h\alpha^2\delta\epsilon\eta - 6ce\beta\delta\epsilon\eta + 4bf\beta\delta\epsilon\eta - ag\beta\delta\epsilon\eta + g\alpha\beta\delta\epsilon\eta - 2f\beta^2\delta\epsilon\eta - ab\gamma\delta\epsilon\eta + b\alpha\gamma\delta\epsilon\eta + a\beta\gamma\delta\epsilon\eta - \alpha\beta\gamma\delta\epsilon\eta + 6ae\delta^2\epsilon\eta - 6e\alpha\delta^2\epsilon\eta - c^3\epsilon^2\eta + 3bcde^2\eta - 3ad^2e^2\eta + 3d^2\alpha e^2\eta - 3cd\beta\epsilon^2\eta - 3bc\delta e^2\eta + 6ad\delta\epsilon^2\eta - 6da\delta\epsilon^2\eta + 3c\beta\delta\epsilon^2\eta - 3a\delta^2\epsilon^2\eta + 3\alpha\delta^2\epsilon^2\eta - b^3e\eta^2 + 3abce\eta^2 - 3a^2de\eta^2 + ab^2f\eta^2 - 2a^2cf\eta^2 - a^2bg\eta^2 + 3a^3h\eta^2 - 3bce\alpha\eta^2 + 6ade\alpha\eta^2 - b^2f\alpha\eta^2 + 4acf\alpha\eta^2 + 2abg\alpha\eta^2 - 9a^2h\alpha\eta^2 - 3de\alpha^2\eta^2 - 2cf\alpha^2\eta^2 - bg\alpha^2\eta^2 + 9ah\alpha^2\eta^2 - 3h\alpha^3\eta^2 + 3b^2e\beta\eta^2 - 3ace\beta\eta^2 - 2abf\beta\eta^2 + a^2g\beta\eta^2 + 3ce\alpha\beta\eta^2 + 2bf\alpha\beta\eta^2 - 2ag\alpha\beta\eta^2 + g\alpha^2\beta\eta^2 - 3be\beta^2\eta^2 + af\beta^2\eta^2 - f\alpha\beta^2\eta^2 + e\beta^3\eta^2 + a^2b\gamma\eta^2 - 2ab\alpha\gamma\eta^2 + b\alpha^2\gamma\eta^2 - a^2\beta\gamma\eta^2 + 2a\alpha\beta\gamma\eta^2 - \alpha^2\beta\gamma\eta^2 + 3a^2e\delta\eta^2 - 6ae\alpha\delta\eta^2 + 3e\alpha^2\delta\eta^2 + b^3\epsilon\eta^2 - 3abc\epsilon\eta^2 + 3a^2d\epsilon\eta^2 + 3bc\alpha\epsilon\eta^2 - 6ad\alpha\epsilon\eta^2 + 3d\alpha^2\epsilon\eta^2 - 3b^2\beta\epsilon\eta^2 + 3ac\beta\epsilon\eta^2 - 3c\alpha\beta\epsilon\eta^2 + 3b\beta^2\epsilon\eta^2 - \beta^3\epsilon\eta^2 - 3a^2\delta\epsilon\eta^2 + 6a\alpha\delta\epsilon\eta^2 - 3\alpha^2\delta\epsilon\eta^2 - a^3\eta^3 + 3a^2\alpha\eta^3 - 3a\alpha^2\eta^3 + \alpha^3\eta^3 - cd^2e^2\phi + 2bd^2ef\phi - 3ad^2f^2\phi - bcdeg\phi + 3ad^2eg\phi + 2acdfg\phi - abdg^2\phi + bc^2eh\phi - 2b^2deh\phi - acdeh\phi - 2ac^2fh\phi + 4abdfh\phi + abcgh\phi - 3a^2dgh\phi - ab^2h^2\phi + 2a^2ch^2\phi + 3d^2f^2\alpha\phi - 3d^2eg\alpha\phi - 2cdfg\alpha\phi + bdg^2\alpha\phi + cdeh\alpha\phi + 2c^2fh\alpha\phi - 4bdfh\alpha\phi - bcgh\alpha\phi + 6adgh\alpha\phi + b^2h^2\alpha\phi - 4ach^2\alpha\phi - 3dgh\alpha^2\phi + 2ch^2\alpha^2\phi - 2d^2ef\beta\phi + cdeg\beta\phi + adg^2\beta\phi - c^2eh\beta\phi + 4bdeh\beta\phi - 4adfh\beta\phi - acgh\beta\phi + 2abh^2\beta\phi - dg^2\alpha\beta\phi + 4dfh\alpha\beta\phi +$$

$$cgh\alpha\beta\phi - 2bh^2\alpha\beta\phi - 2deh\beta^2\phi - ah^2\beta^2\phi + h^2\alpha\beta^2\phi + bcde\gamma\phi - 3ad^2e\gamma\phi - 2acdf\gamma\phi + 2abdg\gamma\phi - abch\gamma\phi + 3a^2dh\gamma\phi + 3d^2e\alpha\gamma\phi + 2cdf\alpha\gamma\phi - 2bdg\alpha\gamma\phi + bch\alpha\gamma\phi - 6adh\alpha\gamma\phi + 3dh\alpha^2\gamma\phi - cde\beta\gamma\phi - 2adg\beta\gamma\phi + ach\beta\gamma\phi + 2dg\alpha\beta\gamma\phi - ch\alpha\beta\gamma\phi - abd\gamma^2\phi + bd\alpha\gamma^2\phi + ad\beta\gamma^2\phi - d\alpha\beta\gamma^2\phi + 2cde^2\delta\phi - 4bdef\delta\phi + 6adf^2\delta\phi + bceg\delta\phi - 6adeg\delta\phi - 2acfg\delta\phi + abg^2\delta\phi + 2b^2eh\delta\phi + aceh\delta\phi - 4abfh\delta\phi + 3a^2gh\delta\phi - 6df^2\alpha\delta\phi + 6deg\alpha\delta\phi + 2cfg\alpha\delta\phi - bg^2\alpha\delta\phi - ceh\alpha\delta\phi + 4bfh\alpha\delta\phi - 6agh\alpha\delta\phi + 3gh\alpha^2\delta\phi + 4def\beta\delta\phi - ceg\beta\delta\phi - ag^2\beta\delta\phi - 4beh\beta\delta\phi + 4afh\beta\delta\phi + g^2\alpha\beta\delta\phi - 4fh\alpha\beta\delta\phi + 2eh\beta^2\delta\phi - bce\gamma\delta\phi + 6ade\gamma\delta\phi + 2acf\gamma\delta\phi - 2abg\gamma\delta\phi - 3a^2h\gamma\delta\phi - 6de\alpha\gamma\delta\phi - 2cf\alpha\gamma\delta\phi + 2bg\alpha\gamma\delta\phi + 6ah\alpha\gamma\delta\phi - 3h\alpha^2\gamma\delta\phi + ce\beta\gamma\delta\phi + 2ag\beta\gamma\delta\phi - 2g\alpha\beta\gamma\delta\phi + ab\gamma^2\delta\phi - b\alpha\gamma^2\delta\phi - a\beta\gamma^2\delta\phi + \alpha\beta\gamma^2\delta\phi - ce^2\delta^2\phi + 2bef\delta^2\phi - 3af^2\delta^2\phi + 3aeg\delta^2\phi + 3f^2\alpha\delta^2\phi - 3eg\alpha\delta^2\phi - 2ef\beta\delta^2\phi - 3ae\gamma\delta^2\phi + 3e\alpha\gamma\delta^2\phi + 2cd^2e\epsilon\phi - 2bd^2f\epsilon\phi + bcdg\epsilon\phi - 3ad^2g\epsilon\phi - bc^2h\epsilon\phi + 2b^2dh\epsilon\phi + acdh\epsilon\phi + 3d^2g\alpha\epsilon\phi - cdh\alpha\epsilon\phi + 2d^2f\beta\epsilon\phi - cdg\beta\epsilon\phi + c^2h\beta\epsilon\phi - 4bdh\beta\epsilon\phi + 2dh\beta^2\epsilon\phi - bcd\gamma\epsilon\phi + 3ad^2\gamma\epsilon\phi - 3d^2\alpha\gamma\epsilon\phi + cd\beta\gamma\epsilon\phi - 4cde\delta\epsilon\phi + 4bdf\delta\epsilon\phi - bcg\delta\epsilon\phi + 6adg\delta\epsilon\phi - 2b^2h\delta\epsilon\phi - ach\delta\epsilon\phi - 6dg\alpha\delta\epsilon\phi + ch\alpha\delta\epsilon\phi - 4df\beta\delta\epsilon\phi + cg\beta\delta\epsilon\phi + 4bh\beta\delta\epsilon\phi - 2h\beta^2\delta\epsilon\phi + bc\gamma\delta\epsilon\phi - 6ad\gamma\delta\epsilon\phi + 6da\gamma\delta\epsilon\phi - c\beta\gamma\delta\epsilon\phi + 2ce\delta^2\epsilon\phi - 2bf\delta^2\epsilon\phi - 3ag\delta^2\epsilon\phi + 3g\alpha\delta^2\epsilon\phi + 2f\beta\delta^2\epsilon\phi + 3a\gamma\delta^2\epsilon\phi - 3\alpha\gamma\delta^2\epsilon\phi - cd^2\epsilon^2\phi + 2cd\delta\epsilon^2\phi - c\delta^2\epsilon^2\phi - bc^2e\eta\phi + 2b^2de\eta\phi + acde\eta\phi + 2ac^2f\eta\phi - 4abdf\eta\phi - abcg\eta\phi + 3a^2dg\eta\phi + 2ab^2h\eta\phi - 4a^2ch\eta\phi - cde\alpha\eta\phi - 2c^2f\alpha\eta\phi + 4bdf\alpha\eta\phi + bcg\alpha\eta\phi - 6adg\alpha\eta\phi - 2b^2h\alpha\eta\phi + 8ach\alpha\eta\phi + 3dg\alpha^2\eta\phi - 4ch\alpha^2\eta\phi + c^2e\beta\eta\phi - 4bde\beta\eta\phi + 4adf\beta\eta\phi + acg\beta\eta\phi - 4abh\beta\eta\phi - 4df\alpha\beta\eta\phi - cg\alpha\beta\eta\phi + 4bh\alpha\beta\eta\phi + 2de\beta^2\eta\phi + 2ah\beta^2\eta\phi - 2h\alpha\beta^2\eta\phi + abc\gamma\eta\phi - 3a^2d\gamma\eta\phi - bc\alpha\gamma\eta\phi + 6ad\alpha\gamma\eta\phi - 3d\alpha^2\gamma\eta\phi - ac\beta\gamma\eta\phi + c\alpha\beta\gamma\eta\phi - 2b^2e\delta\eta\phi - ace\delta\eta\phi + 4abf\delta\eta\phi - 3a^2g\delta\eta\phi + ce\alpha\delta\eta\phi - 4bf\alpha\delta\eta\phi + 6ag\alpha\delta\eta\phi - 3g\alpha^2\delta\eta\phi + 4be\beta\delta\eta\phi - 4af\beta\delta\eta\phi + 4f\alpha\beta\delta\eta\phi - 2e\beta^2\delta\eta\phi + 3a^2\gamma\delta\eta\phi - 6a\alpha\gamma\delta\eta\phi + 3\alpha^2\gamma\delta\eta\phi + bc^2\epsilon\eta\phi - 2b^2d\epsilon\eta\phi - acd\epsilon\eta\phi + cd\alpha\epsilon\eta\phi - c^2\beta\epsilon\eta\phi + 4bd\beta\epsilon\eta\phi - 2d\beta^2\epsilon\eta\phi + 2b^2\delta\epsilon\eta\phi + ac\delta\epsilon\eta\phi - c\alpha\delta\epsilon\eta\phi - 4b\beta\delta\epsilon\eta\phi + 2\beta^2\delta\epsilon\eta\phi - ab^2\eta^2\phi + 2a^2c\eta^2\phi + b^2\alpha\eta^2\phi - 4ac\alpha\eta^2\phi + 2c\alpha^2\eta^2\phi + 2ab\beta\eta^2\phi - 2b\alpha\beta\eta^2\phi - a\beta^2\eta^2\phi + \alpha\beta^2\eta^2\phi - bd^2e\phi^2 + 3ad^2f\phi^2 - acdg\phi^2 + ac^2h\phi^2 - 2abdh\phi^2 - 3d^2f\alpha\phi^2 + cdg\alpha\phi^2 - c^2h\alpha\phi^2 + 2bdh\alpha\phi^2 + d^2e\beta\phi^2 + 2adh\beta\phi^2 - 2dh\alpha\beta\phi^2 + acd\gamma\phi^2 - cd\alpha\gamma\phi^2 + 2bde\delta\phi^2 - 6adf\delta\phi^2 + acg\delta\phi^2 + 2abh\delta\phi^2 + 6df\alpha\delta\phi^2 - cg\alpha\delta\phi^2 - 2bh\alpha\delta\phi^2 - 2de\beta\delta\phi^2 - 2ah\beta\delta\phi^2 + 2h\alpha\beta\delta\phi^2 - ac\gamma\delta\phi^2 + c\alpha\gamma\delta\phi^2 - be\delta^2\phi^2 + 3af\delta^2\phi^2 - 3f\alpha\delta^2\phi^2 + e\beta\delta^2\phi^2 + bd^2\epsilon\phi^2 - d^2\beta\epsilon\phi^2 - 2bd\delta\epsilon\phi^2 + 2d\beta\delta\epsilon\phi^2 + b\delta^2\epsilon\phi^2 - \beta\delta^2\epsilon\phi^2 - ac^2\eta\phi^2 + 2abd\eta\phi^2 + c^2\alpha\eta\phi^2 - 2bd\alpha\eta\phi^2 - 2ad\beta\eta\phi^2 + 2d\alpha\beta\eta\phi^2 - 2ab\delta\eta\phi^2 + 2b\alpha\delta\eta\phi^2 + 2a\beta\delta\eta\phi^2 - 2\alpha\beta\delta\eta\phi^2 - ad^2\phi^3 + d^2\alpha\phi^3 + 2ad\delta\phi^3 - 2d\alpha\delta\phi^3 - a\delta^2\phi^3 + \alpha\delta^2\phi^3 - d^2e^2f\chi + 2cde^2g\chi - bdefg\chi + adf^2g\chi - 2adeg^2\chi - 3c^2e^2h\chi + 3bde^2h\chi + 2bcefh\chi - adefh\chi - 2acf^2h\chi - b^2egh\chi + 4acegh\chi + abfgh\chi - a^2g^2h\chi - 3abeh^2\chi + 2a^2fh^2\chi - df^2g\alpha\chi + 2deg^2\alpha\chi + defh\alpha\chi + 2cf^2h\alpha\chi - 4cegh\alpha\chi - bfgh\alpha\chi + 2ag^2h\alpha\chi + 3beh^2\alpha\chi - 4afh^2\alpha\chi - g^2h\alpha^2\chi + 2fh^2\alpha^2\chi + defg\beta\chi - 3de^2h\beta\chi - 2cefh\beta\chi + 2begh\beta\chi - afgh\beta\chi + 3aeh^2\beta\chi + fgh\alpha\beta\chi - 3eh^2\alpha\beta\chi - egh\beta^2\chi - 2cde^2\gamma\chi + bdef\gamma\chi - adf^2\gamma\chi + 4adeg\gamma\chi + b^2eh\gamma\chi - 4aceh\gamma\chi - abfh\gamma\chi + 2a^2gh\gamma\chi + df^2\alpha\gamma\chi - 4deg\alpha\gamma\chi + 4ceh\alpha\gamma\chi + bfh\alpha\gamma\chi - 4agh\alpha\gamma\chi + 2gh\alpha^2\gamma\chi - def\beta\gamma\chi - 2beh\beta\gamma\chi + afh\beta\gamma\chi - fh\alpha\beta\gamma\chi + eh\beta^2\gamma\chi - 2ade\gamma^2\chi - a^2h\gamma^2\chi + 2de\alpha\gamma^2\chi + 2ah\alpha\gamma^2\chi - h\alpha^2\gamma^2\chi + 2de^2f\delta\chi - 2ce^2g\delta\chi + befg\delta\chi - af^2g\delta\chi + 2aeg^2\delta\chi - 3be^2h\delta\chi + aefh\delta\chi + f^2g\alpha\delta\chi - 2eg^2\alpha\delta\chi - efh\alpha\delta\chi - efg\beta\delta\chi + 3e^2h\beta\delta\chi + 2ce^2\gamma\delta\chi - bef\gamma\delta\chi + af^2\gamma\delta\chi - 4aeg\gamma\delta\chi - f^2\alpha\gamma\delta\chi + 4eg\alpha\gamma\delta\chi + ef\beta\gamma\delta\chi + 2ae\gamma^2\delta\chi - 2e\alpha\gamma^2\delta\chi - e^2f\delta^2\chi + 2d^2ef\epsilon\chi - 4cdeg\epsilon\chi + bdfg\epsilon\chi + 2adg^2\epsilon\chi + 6c^2eh\epsilon\chi - 6bdeh\epsilon\chi - 2bcfh\epsilon\chi + adfh\epsilon\chi + b^2gh\epsilon\chi - 4acgh\epsilon\chi + 3abh^2\epsilon\chi - 2dg^2\alpha\epsilon\chi - dfh\alpha\epsilon\chi + 4cgh\alpha\epsilon\chi - 3bh^2\alpha\epsilon\chi - dfg\beta\epsilon\chi + 6deh\beta\epsilon\chi + 2cfh\beta\epsilon\chi - 2bgh\beta\epsilon\chi - 3ah^2\beta\epsilon\chi + 3h^2\alpha\beta\epsilon\chi + gh\beta^2\epsilon\chi + 4cde\gamma\epsilon\chi - bdf\gamma\epsilon\chi - 4adg\gamma\epsilon\chi - b^2h\gamma\epsilon\chi + 4ach\gamma\epsilon\chi + 4dg\alpha\gamma\epsilon\chi - 4ch\alpha\gamma\epsilon\chi + df\beta\gamma\epsilon\chi + 2bh\beta\gamma\epsilon\chi - h\beta^2\gamma\epsilon\chi + 2ad\gamma^2\epsilon\chi - 2d\alpha\gamma^2\epsilon\chi - 4def\delta\epsilon\chi + 4ceg\delta\epsilon\chi - bfg\delta\epsilon\chi - 2ag^2\delta\epsilon\chi + 6beh\delta\epsilon\chi - afh\delta\epsilon\chi + 2g^2\alpha\delta\epsilon\chi + fh\alpha\delta\epsilon\chi + fg\beta\delta\epsilon\chi - 6eh\beta\delta\epsilon\chi - 4ce\gamma\delta\epsilon\chi + bf\gamma\delta\epsilon\chi + 4ag\gamma\delta\epsilon\chi - 4g\alpha\gamma\delta\epsilon\chi - f\beta\gamma\delta\epsilon\chi - 2a\gamma^2\delta\epsilon\chi + 2\alpha\gamma^2\delta\epsilon\chi + 2ef\delta^2\epsilon\chi - d^2f\epsilon^2\chi + 2cdg\epsilon^2\chi - 3c^2h\epsilon^2\chi + 3bdh\epsilon^2\chi - 3dh\beta\epsilon^2\chi - 2cd\gamma\epsilon^2\chi + 2df\delta\epsilon^2\chi - 2cg\delta\epsilon^2\chi - 3bh\delta\epsilon^2\chi + 3h\beta\delta\epsilon^2\chi + 2c\gamma\delta\epsilon^2\chi - f\delta^2\epsilon^2\chi + 3c^2e^2\eta\chi - 3bde^2\eta\chi - 2bcef\eta\chi + adef\eta\chi + 2acf^2\eta\chi + b^2eg\eta\chi - 4aceg\eta\chi - abfg\eta\chi + a^2g^2\eta\chi + 6abeh\eta\chi - 4a^2fh\eta\chi - def\alpha\eta\chi - 2cf^2\alpha\eta\chi + 4ceg\alpha\eta\chi + bfg\alpha\eta\chi - 2ag^2\alpha\eta\chi - 6beh\alpha\eta\chi + 8afh\alpha\eta\chi + g^2\alpha^2\eta\chi - 4fh\alpha^2\eta\chi + 3de^2\beta\eta\chi + 2cef\beta\eta\chi - 2beg\beta\eta\chi + afg\beta\eta\chi - 6aeh\beta\eta\chi - fg\alpha\beta\eta\chi + 6eh\alpha\beta\eta\chi + eg\beta^2\eta\chi - b^2e\gamma\eta\chi + 4ace\gamma\eta\chi + abf\gamma\eta\chi - 2a^2g\gamma\eta\chi - 4ce\alpha\gamma\eta\chi - bf\alpha\gamma\eta\chi + 4ag\alpha\gamma\eta\chi - 2g\alpha^2\gamma\eta\chi + 2be\beta\gamma\eta\chi - af\beta\gamma\eta\chi + f\alpha\beta\gamma\eta\chi - e\beta^2\gamma\eta\chi + a^2\gamma^2\eta\chi - 2a\alpha\gamma^2\eta\chi + \alpha^2\gamma^2\eta\chi + 3be^2\delta\eta\chi - aef\delta\eta\chi + ef\alpha\delta\eta\chi - 3e^2\beta\delta\eta\chi - 6c^2e\epsilon\eta\chi + 6bde\epsilon\eta\chi + 2bcf\epsilon\eta\chi - adf\epsilon\eta\chi - b^2g\epsilon\eta\chi + 4acg\epsilon\eta\chi - 6abh\epsilon\eta\chi + df\alpha\epsilon\eta\chi - 4cg\alpha\epsilon\eta\chi + 6bh\alpha\epsilon\eta\chi - 6de\beta\epsilon\eta\chi - 2cf\beta\epsilon\eta\chi + 2bg\beta\epsilon\eta\chi + 6ah\beta\epsilon\eta\chi - 6h\alpha\beta\epsilon\eta\chi - g\beta^2\epsilon\eta\chi + b^2\gamma\epsilon\eta\chi - 4ac\gamma\epsilon\eta\chi + 4c\alpha\gamma\epsilon\eta\chi - 2b\beta\gamma\epsilon\eta\chi + \beta^2\gamma\epsilon\eta\chi - 6be\delta\epsilon\eta\chi + af\delta\epsilon\eta\chi - f\alpha\delta\epsilon\eta\chi + 6e\beta\delta\epsilon\eta\chi + 3c^2\epsilon^2\eta\chi - 3bd\epsilon^2\eta\chi + 3d\beta\epsilon^2\eta\chi + 3b\delta\epsilon^2\eta\chi - 3\beta\delta\epsilon^2\eta\chi - 3abe\eta^2\chi + 2a^2f\eta^2\chi + 3be\alpha\eta^2\chi - 4af\alpha\eta^2\chi + 2f\alpha^2\eta^2\chi + 3ae\beta\eta^2\chi - 3e\alpha\beta\eta^2\chi + 3ab\epsilon\eta^2\chi - 3b\alpha\epsilon\eta^2\chi - 3a\beta\epsilon\eta^2\chi + 3\alpha\beta\epsilon\eta^2\chi + d^2e^2\phi\chi + bdeg\phi\chi - 2adfg\phi\chi - 2bceh\phi\chi + adeh\phi\chi + 4acfh\phi\chi - abgh\phi\chi - 2a^2h^2\phi\chi + 2dfg\alpha\phi\chi - deh\alpha\phi\chi - 4cfh\alpha\phi\chi + bgh\alpha\phi\chi + 4ah^2\alpha\phi\chi - 2h^2\alpha^2\phi\chi - deg\beta\phi\chi + 2ceh\beta\phi\chi + agh\beta\phi\chi - gh\alpha\beta\phi\chi - bde\gamma\phi\chi + 2adf\gamma\phi\chi + abh\gamma\phi\chi - 2df\alpha\gamma\phi\chi - bh\alpha\gamma\phi\chi + de\beta\gamma\phi\chi - ah\beta\gamma\phi\chi + h\alpha\beta\gamma\phi\chi - 2de^2\delta\phi\chi - beg\delta\phi\chi + 2afg\delta\phi\chi - aeh\delta\phi\chi - 2fg\alpha\delta\phi\chi + eh\alpha\delta\phi\chi + eg\beta\delta\phi\chi + be\gamma\delta\phi\chi - 2af\gamma\delta\phi\chi + 2f\alpha\gamma\delta\phi\chi - e\beta\gamma\delta\phi\chi + e^2\delta^2\phi\chi - 2d^2e\epsilon\phi\chi - bdg\epsilon\phi\chi + 2bch\epsilon\phi\chi - adh\epsilon\phi\chi + dh\alpha\epsilon\phi\chi + dg\beta\epsilon\phi\chi - 2ch\beta\epsilon\phi\chi + bd\gamma\epsilon\phi\chi - d\beta\gamma\epsilon\phi\chi + 4de\delta\epsilon\phi\chi + bg\delta\epsilon\phi\chi + ah\delta\epsilon\phi\chi - h\alpha\delta\epsilon\phi\chi - g\beta\delta\epsilon\phi\chi - b\gamma\delta\epsilon\phi\chi + \beta\gamma\delta\epsilon\phi\chi - 2e\delta^2\epsilon\phi\chi + d^2\epsilon^2\phi\chi - 2d\delta\epsilon^2\phi\chi + \delta^2\epsilon^2\phi\chi + 2bce\eta\phi\chi - ade\eta\phi\chi - 4acf\eta\phi\chi + abg\eta\phi\chi + 4a^2h\eta\phi\chi + de\alpha\eta\phi\chi + 4cf\alpha\eta\phi\chi - bg\alpha\eta\phi\chi - 8ah\alpha\eta\phi\chi + 4h\alpha^2\eta\phi\chi - 2ce\beta\eta\phi\chi - ag\beta\eta\phi\chi + g\alpha\beta\eta\phi\chi - ab\gamma\eta\phi\chi + b\alpha\gamma\eta\phi\chi + a\beta\gamma\eta\phi\chi - \alpha\beta\gamma\eta\phi\chi + ae\delta\eta\phi\chi - e\alpha\delta\eta\phi\chi - 2bce\eta\phi\chi + ad\epsilon\eta\phi\chi - d\alpha\epsilon\eta\phi\chi + 2c\beta\epsilon\eta\phi\chi - a\delta\epsilon\eta\phi\chi + \alpha\delta\epsilon\eta\phi\chi - 2a^2\eta^2\phi\chi + 4a\alpha\eta^2\phi\chi - 2\alpha^2\eta^2\phi\chi + adg\phi^2\chi - 2ach\phi^2\chi - dg\alpha\phi^2\chi + 2ch\alpha\phi^2\chi - ad\gamma\phi^2\chi + d\alpha\gamma\phi^2\chi - ag\delta\phi^2\chi + g\alpha\delta\phi^2\chi + a\gamma\delta\phi^2\chi - \alpha\gamma\delta\phi^2\chi + 2ac\eta\phi^2\chi - 2c\alpha\eta\phi^2\chi - de^2g\chi^2 + 3ce^2h\chi^2 - befh\chi^2 + af^2h\chi^2 - 2aegh\chi^2 - f^2h\alpha\chi^2 +$$

$$2egh\alpha\chi^2 + efh\beta\chi^2 + de^2\gamma\chi^2 + 2aeh\gamma\chi^2 - 2eh\alpha\gamma\chi^2 + e^2g\delta\chi^2 - e^2\gamma\delta\chi^2 + 2deg\epsilon\chi^2 - 6ceh\epsilon\chi^2 + bfh\epsilon\chi^2 + 2agh\epsilon\chi^2 - 2gh\alpha\epsilon\chi^2 - fh\beta\epsilon\chi^2 - 2de\gamma\epsilon\chi^2 - 2ah\gamma\epsilon\chi^2 + 2h\alpha\gamma\epsilon\chi^2 - 2eg\delta\epsilon\chi^2 + 2e\gamma\delta\epsilon\chi^2 - dg\epsilon^2\chi^2 + 3ch\epsilon^2\chi^2 + d\gamma\epsilon^2\chi^2 + g\delta\epsilon^2\chi^2 - \gamma\delta\epsilon^2\chi^2 - 3ce^2\eta\chi^2 + bef\eta\chi^2 - af^2\eta\chi^2 + 2aeg\eta\chi^2 + f^2\alpha\eta\chi^2 - 2eg\alpha\eta\chi^2 - ef\beta\eta\chi^2 - 2ae\gamma\eta\chi^2 + 2e\alpha\gamma\eta\chi^2 + 6ce\epsilon\eta\chi^2 - bf\epsilon\eta\chi^2 - 2ag\epsilon\eta\chi^2 + 2g\alpha\epsilon\eta\chi^2 + f\beta\epsilon\eta\chi^2 + 2a\gamma\epsilon\eta\chi^2 - 2\alpha\gamma\epsilon\eta\chi^2 - 3c\epsilon^2\eta\chi^2 + beh\phi\chi^2 - 2afh\phi\chi^2 + 2fh\alpha\phi\chi^2 - eh\beta\phi\chi^2 - bh\epsilon\phi\chi^2 + h\beta\epsilon\phi\chi^2 - be\eta\phi\chi^2 + 2af\eta\phi\chi^2 - 2f\alpha\eta\phi\chi^2 + e\beta\eta\phi\chi^2 + b\epsilon\eta\phi\chi^2 - \beta\epsilon\eta\phi\chi^2 + ah\phi^2\chi^2 - h\alpha\phi^2\chi^2 - a\eta\phi^2\chi^2 + \alpha\eta\phi^2\chi^2 - e^2h\chi^3 + 2eh\epsilon\chi^3 - h\epsilon^2\chi^3 + e^2\eta\chi^3 - 2e\epsilon\eta\chi^3 + \epsilon^2\eta\chi^3 = 0$$

The End