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6.
$$ax^4 + bx^3 + cx^2 - bx + a = 0$$
 $(a \neq 0)$.

Modified reciprocal equation.

The substitution

$$y = x - \frac{1}{x}$$

leads to a quadratic equation of the form

$$ay^2 + by + 2a + c = 0.$$

Modified Reciprocal Equation

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