where

$$\alpha = \sqrt{b^2 - c^2}, \quad \beta = \sqrt{c^2 - a^2}, \quad \gamma = \sqrt{a^2 - b^2}.$$

Transform to a new system of coördinates x_1, x_2, x_3, x_4, by means of the equations

$$x_1 = (c - b)\,[a\alpha\beta x - (b\beta^2 - c\gamma^2)y + iac\alpha\gamma w],$$
$$x_2 = (b + c)\,[a\alpha\beta x - (b\beta^2 + c\gamma^2)y + iac\alpha\gamma w],$$
$$x_3 = (a + c)\,[a\alpha x - b\beta y + c\gamma z],$$
$$x_4 = (c - a)\,[a\alpha x - b\beta y - c\gamma z].$$

With respect to this new system, the coördinates of the six chosen nodes are (1, 0, 0, 0), (0, 1, 0, 0), (0, 0, 1, 0), (0, 0, 0, 1), (e_1, e_2, e_3, e_4), (e_2, e_1, e_4, e_3), where

$$e_1 = \beta\,(b^2 - c^2)\,(c - a), \quad e_3 = (a^2 - c^2)\,(c + b),$$
$$e_2 = \beta\,(b^2 - c^2)\,(c + a), \quad e_4 = (a^2 - c^2)\,(c - b).$$

These six points form an involution of the kind described. (See *Annals of Mathematics*, vol. 11, p. 159.)

NOTE ON INTEGRATING FACTORS.

BY MR. PAUL SAUREL.

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If the differential equation

$$X_1dx_1 + X_2dx_2 + \cdots + X_ndx_n = 0, \quad n \gtreqless 3, \qquad \text{(A)}$$

be integrable, and if $u =$ constant be the integral of this equation, then, as is well known, there exists a function M such that

$$du \equiv MX_1dx_1 + MX_2dx_2 + \cdots + MX_ndx_n.$$

And as

$$\frac{\partial u}{\partial x_1} \equiv MX_1, \quad \frac{\partial u}{\partial x_2} \equiv MX_2, \cdots \frac{\partial u}{\partial x_n} \equiv MX_n,$$