\( F(x, y, \frac{dy}{dx}, \ldots, \frac{d^n y}{dx^n}) \) is an exact derivative if and only if \( \frac{\partial F}{\partial y} - \frac{d}{dx} \) and \( \frac{\partial F}{\partial y_1} + \cdots + (-)^n \frac{d^n}{dx^n} \) and \( \frac{\partial F}{\partial y_n} = 0 \), where \( y_k = \frac{d^k y}{dx^k} \). The inductive proof here presented appears to be the shortest elementary proof yet devised. (Received November 2, 1936.)

ERRATUM

On page 497 of this volume, abstract 42-7-311 (by Professor C. C. Camp), in the statement of the lemma, replace the words “otherwise zero” by “and \( h - \theta \) when \( h = h' + \theta \), \( 0 < \theta < 1 \), where \( h' \) is an integer.”