Liouville's Theorem (Differential algebra)

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Sber

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Liouville's Theorem

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Basic definitions

What is integrability in elementary functions

Definition

Field F is differential if it's equipped with the unary function ' such that:

- (a+b)' = a' + b'
- (ab)' = a'b + ab'

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Let F be the differential field. Then

- ▶ b is called the logarithm of a if $b' = \frac{a'}{a}$
- **b** is called the exponent of a if $a' = \frac{b'}{b} = \frac{b'}{b} = \frac{b'}{b} = \frac{b}{b} = \frac$

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