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Quasi-algebraic functions

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Antonio Salmeri denotes as "quasi-algebraic" those functions of x and $[x]$ which are algebraic in x. (Gior. di Mat., vol. 91, 1963). Those functions described by him, and those considered in this report, are algebraic in $[x]$ also.

Solutions of linear equations are first considered.

If x is real and positive, and $\left\{ x^n \right\}$ is the sum of powers of positive terms, $x^n + (x-1)^n + (x-2)^n + \cdots$, it is a quasi-algebraic function. If, in this function, $[x]$ is replaced by x, we obtain the associated function $x\left\{x^n\right\}$. The two functions and their difference are studied in some detail.

The paper then considers the possibility of replacing the real number x by the complex number x + yi.