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order of an elliptic function

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The *order* of an elliptic function is the number of poles of the function contained within a fundamental period parallelogram, counted with multiplicity. Sometimes the term “degree” is also used — this usage agrees with the theory of Riemann surfaces.

This order is always a finite number; this follows from the fact that a meromorphic function can only have a finite number of poles in a compact region (such as the closure of a period parallelogram). As it turns out, the order can be any integer greater than 1.