



Recursion Relations and Functional Equations for the Riemann Zeta Function

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New recursion relations for the Riemann zeta function are introduced. Their derivation started from the standard functional equation. The new functional equations have both real and imaginary increment versions and can be applied over the whole complex plane. We have developed various versions of the recursion relations eliminating each of the coefficient functions, leaving plain zeta functions

Comments: Revised with two new recursion relations to section 4

Subjects: **General Mathematics (math.GM)**

MSC classes: 11M26, 11E45, 11M41, 11S40, 30G30

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