SquaresR

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Notations

Traditional name

Sum of squares function

Traditional notation

$r_m(n)$

Mathematica StandardForm notation

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SquaresR[m, n]
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Primary definition

13.12.02.0001.01

$r_m(n)$

For nonnegative integer n, the function $r_m(n)$ is the number of representations of n as a sum of m squares of different positive or negative integers.
In particular, $r_0(n) == 0$.

Example: $r_2(2) == 4$ because $2 == 1^2 + 1^2 == (-1)^2 + 1^2 == 1^2 + (-1)^2 == (-1)^2 + (-1)^2$.

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