Some Results on Partitions Inspired by Schur

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Let f(sub 6)(n) denote the number of partitions of the natural number n into parts co-prime to 6. (This function was originally studied by Schur.) We derive two explicit formulas for f(sub 6)(n), one of them in terms of the partition function, p(n). We also derive two recurrences for f(sub 6)(n).