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## Formulas for the Fourier Coefficients of Cusp Form for Some Quadratic Forms

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**Abstract:** In this paper, representations of positive integers by certain quadratic forms $Q_p$ defined for odd prime p are examined. The number of representations of positive integer n by the quadratic form $Q_p$, is denoted by $r(n; Q_p)$, obtained for p=3,5 and 7. \thinspace We prove that $r(n; Q_p) = \rho(n; Q_p) + \vartheta(n; Q_p)$ for p=3,5 and 7, where $\rho(n; Q_p)$ is the singular series and $\vartheta(n; Q_p)$ is the Fourier coefficient of cusp form.

**Key Words:** representation of numbers, quadratic forms, generalized theta series, Fourier coefficient of cusp forms