

In this note we derive some very interesting properties of the following function defined in  $q$ -series form.

$$\eta_k(a, q) = \frac{1}{2} \cdot \left( \frac{\sum_{m=0}^{\infty} (-1)^m q^{2m+1} \prod_{n=1}^{\infty} (1 - aq^{(2m+1)n})^k}{\sum_{m=0}^{\infty} (-1)^m q^{2m+2} \prod_{n=1}^{\infty} (1 - aq^{(2m+2)n})^k} \right) + \frac{1}{2} \cdot \left( \frac{\sum_{m=0}^{\infty} q^{2m+1} \prod_{n=1}^{\infty} (1 - aq^{(2m+1)n})^k}{\sum_{m=0}^{\infty} q^{2m+2} \prod_{n=1}^{\infty} (1 - aq^{(2m+2)n})^k} \right)$$

As usual for convergence we put  $|a \cdot q| \leq 1$ . Also we obtain some new identities related to Ramanujans Tau- function, from the above function. We present a general formula for the coefficients of the Eta- function.