Solving for the runtime complexity of $T(n)$:

$$T(n) = (\text{cost of base case})(\#\text{ of times base case is reached}) + \sum_{i=0}^{\log_5 n-2} 3^i \left(\frac{n}{5^i}\right)^2$$

$$= (1)(3^{\log_5 n-1}) + \sum_{i=0}^{\log_5 n-2} 3^i \frac{n^2}{5^{2i}}$$

$$= 3^{\log_5 n-1} + \sum_{i=0}^{\log_5 n-2} n^2 \frac{3^i}{25^i}$$

$$= 3^{\log_5 n-1} + n^2 \sum_{i=0}^{\log_5 n-2} \left(\frac{3}{25}\right)^i \leftarrow \text{using geo series}$$

$$= 3^{\log_5 n-1} + n^2 \left(\frac{1-\left(\frac{3}{25}\right)^{\log_5 n-1}}{1-\frac{3}{25}}\right) \qquad \log_5 n = \frac{\log_{(3/25)} n}{\log_{(3/25)} 5}$$

$$= 3^{\log_5 n-1} + n^2 \left(\frac{1-\left(\frac{3}{25}\right)^{\log_5 n}\left(\frac{3}{25}\right)^{-1}}{\frac{22}{25}}\right)$$

$$= 3^{\log_5 n-1} + \frac{25n^2}{22}\left(1-\left(\frac{3}{25}\right)^{\frac{\log_{3/25} n}{\log_{3/25} 5}}\left(3/25\right)^{-1}\right)$$

$$= 3^{\log_5 n-1} + \frac{25n^2}{22}\left(1-\left(3/25^{\log_{3/25} n}\right)^{1/\log_{3/25} 5}\left(3/25\right)^{-1}\right)$$

$$= 3^{\log_5 n-1} + \frac{25n^2}{22}\left(1-(n)^{1/\log_{3/25} 5}\left(25/3\right)\right)$$

$$= 3^{\log_5 n-1} + \frac{25}{22}\left(n^2-(n)^{2+1/\log_{3/25} 5}\left(\frac{25}{3}\right)\right)$$

From the above we know that $2+\frac{1}{\log_{3/25} 5} < 2$, such that the highest component is n^2, such that

$$T(n) = \Theta(n^2)$$