(The indices i and j refer to color).

According to the standard renormalization group analysis[33] the coefficient function C_A appearing in the operator product expansion corresponding to the operators σ_A satisfies the equation

$$C_A(X/\lambda,\ g,\ m,\ M)$$

$$\left[\exp - \int_1^{\lambda} \frac{d\lambda'}{\lambda'}\ \gamma_A\left(g(\lambda')\right)\right] C_A\left(X, g(\lambda), m(\lambda), M\right), \tag{3}$$

Here M is the renormalization mass. $g(\lambda)$ is the solution of the equation

$$\lambda \frac{dg(\lambda)}{d\lambda} = \beta\left(g(\lambda)\right). \tag{4}$$

For $\beta(g) = bg^3 + \ldots$ one finds $g^2(\lambda) \to \frac{-1}{2b \log \lambda}$ $(b < 0)$. The effective mass $m(\lambda)$, as is well known, behaves like

$$m(\lambda) \sim (\log \lambda^2)^{-12/25} \text{ for } \lambda \to \infty \tag{5}$$

for the standard color-triplet theory. The two operators S and T, which we will refer to collectively as P_J, $J = 1, 2$ are multiplicatively renormalized by a four-by-four matrix $\underset{\sim}{Z}$. To determine $\underset{\sim}{Z}$ we compute the matrix element $\langle T\ P_J\ \bar{\psi}\psi\bar{\psi}\psi\rangle$ and require $Z_2^2\ Z_{JK} \langle T\ P_K\ \bar{\psi}\psi\bar{\psi}\psi\rangle$ to be cut-off independent. The matrix element $\langle T\ P_J\ \bar{\psi}\psi\bar{\psi}\psi\rangle$ are given to one-loop order by the graphs in Fig. 3. The computation of these graphs consists of simple exercises in manipulating identities involving color SU(3) and Lorentz indices. The result is