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Suppose we artificially "break"  $\Pi_{\mu\nu}(q^2)$  to write a version that violates the WT identities:

$$i \Pi^{\mu\nu}(q) = i M^2 \left( g^{\mu\nu} - \frac{q^\mu q^\nu}{q^2} \right) = i M^2 g^{\mu\nu}$$

$$\text{Dim}[M] = 1$$

Obtain the full photon propagator and show that its pole has now moved away from zero.