1. Why does the $2z/(1-z)$ term appear both in P_{qq} and P_{gg}?
2. Is the final-state momentum mapping shown in the lecture collinear safe?
3. Can you explain why the color-flow expression for the gluon-gluon vertex does not contain a $1/N_c$ term?
4. How should colors be assigned when a gluon splits into two gluons?
5. Compute the matrix element in the semi-classical approximation using the Landau gauge $-g^{\mu\nu} + \frac{k^\mu k^\nu}{k^2}$
6. Find examples where (at first order in perturbation theory) real/virtual corrections are probed