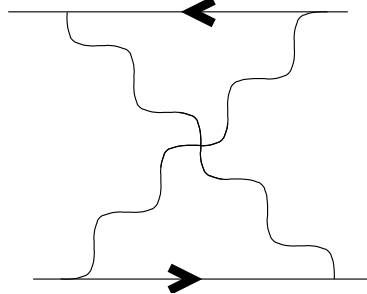


## Exercises for Chapter 3

1. Evaluate the crossed bird-track diagram:



2. Check that the  $\beta$  function for the quartic squark interaction in SUSY QCD where all legs share the same flavor is consistent with SUSY.
3. Given the results for breaking SUSY QCD with  $N$  colors  $F$  flavors to  $N - 1$  colors, give a counting argument which determines the massless spectrum at a point in moduli space where there are  $m$  flavors of squarks with non-zero VEVs and  $m < N, F$ .