

P622—Quantum Field Theory
Spring, 2011
Problem Set 7
Due: Thursday, February 17

1.) Problem 27.1 from Srednicki.

2.) Problem 28.1 from Srednicki.

3.) Problem 51.2 from Srednicki. Note that for this problem, you are calculating the finite part of Z_g . In class, we only calculated the infinite part (see Eq. (51.48)). Your answer will still involve an integral

$$\int dF_3 \ln D.$$

You don't need to do that integral over the Feynman parameters.

4.) Problem 51.3 from Srednicki.

5.) Problem 52.1 from Srednicki.