- ${\bf 1}\ (15\ \mathrm{points})$ Solve Problem 42.1 on page 270 of Srednicki.
- **2** (15 points) Derive Equation 45.22 on page 287 of Srednicki without using momentum-space Feynman diagrams.
- **3** (15 points) Derive Equation 45.23 on page 289 of Srednicki without using momentum-space Feynman diagrams.
- 4 (15 points) Solve Problem 45.2 on page 290 of Srednicki.
- 5 (10 points) Solve Problem 47.1 on page 297 of Srednicki.
- 6 (15 points) Solve Problem 47.2 on page 297 of Srednicki.
- 7 (15 points) Solve Problem 47.3 on page 297 of Srednicki.