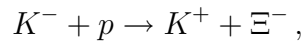


Reading: Chapters 10 and 12.1-2

Problems:

1. One of the strange particles observed in early bubble chamber experiments was  $\Xi^-$ , called the “cascade” particle. It was produced in the reaction



and it decayed through the cascade



Draw Feynman diagrams with quarks and gluons for the production and decay processes.

2. Williams, Problem 10.7.
3. Williams, Problem 10.8.
4. Williams, Problem 10.9.
5. Williams, Problem 10.13.

**Reminder:** The first draft of your term paper is due on Friday, April 4.