## 18.100A Fall 2012: Assignment 24

 $As\ before,\ list\ collaborators,\ if\ any;\ it's\ illegal\ to\ consult\ assignment\ solutions\ from\ previous\ semesters.$ 

Reading: 26.2-.3; 21.3 Leibniz' formula, Fubini's theorem. Gamma function.

- **1.** (1) Work 26.2/2.
- **2.** (2) Work 26.2/5. Don't forget the initial conditions.
- **3.** (1) Work 26.3/1.
- **4.** (2) Work 26.3/2.
- **5.** (2) Work Questions 21.3/1,2; if possible without consulting the solutions.
- **6.** (2: .5, 1.5) Work 21.2/5ab.

For (b), look first for a simple non-negative discontinuous function which has the other desired properties, then alter it so as to make it continuous without destroying its other desired properties; then finally alter it again to make it positive, still retaining the other desired properties.

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