M362K (56310), Homework #9

Due: 12:30pm, Thursday, Mar. 31

Instructions: Please show all your work, not only your final answer, in order to receive credit. Please keep answers organized in the same order the problems have been assigned.

Probability densities (4.1)

1. Pitman, p. 275, #1

2. Pitman, p. 275, #3

3. Pitman, p. 276, #4

4. Pitman, p. 276, #5

5. Pitman, p. 276, #8

6. Pitman, p. 276, #12

7. Pitman, p. 335, #8

Exponential and gamma distributions (4.2)

8. Pitman, p. 293, #1

9. Pitman, p. 293, #5

10. Pitman, p. 293, #6

11. Pitman, p. 335, #13 *[Note: For (b), remember that the rate of all calls is the sum of the individual rates of local and long-distance calls.]*

12. Pitman, p. 335, #14

13. Pitman, p. 336, #15

14. Pitman, p. 336, #18

Variable rates (4.2)

15. Pitman, p. 301, #6 *[Note: For (d), use that the mean lifetime is the integral of the survival function from 0 to infinity, as given on p. 299.]*