

Ma 2a P: Homework N.6

due Tuesday Nov 16, 12 noon

1. Problem #26 and #27 of §6.1 (Gamma function)¹
2. Problem #27 of §6.2 (Laplace transform and Taylor series)
3. Problem #34 and #36 of §6.3 (periodic functions)
4. Find the inverse Laplace transform of the following functions

- $\frac{8s^2 - 4s + 12}{s(s^2 + 4)}$
- $\frac{2s - 3}{s^2 + 2s + 10}$
- $\frac{2(s - 1)e^{-2s}}{s^2 - 2s + 2}$
- $\frac{4}{(s - 1)^3}$

¹Numbering of problems according to the 9th edition of the textbook