

Homework 16

Math 230

due 4:00pm on Monday, November 16

Write your solutions to the following problems clearly and neatly. Make sure to explain your reasoning and provide mathematical details that support your answers. For a few tips on writing solutions, see [this helpful guide for mathematical writing](#).

You may write or type your solutions electronically, or write them on paper and scan or photograph them. Upload a single file containing your solutions to the [Homework 16](#) assignment on Moodle.

Book Problems

- Chapter 7 review exercises #1–5 (page 670)
- Appendix B exercises #1, 5, 9, 10, 16, 17 (pages 748–750)

Cauchy-Euler Equations

Solve the following Cauchy-Euler equations.

1. $t^2 \frac{d^2 y}{dt^2} + 5t \frac{dy}{dt} + 3y = 0$

2. $t^2 \frac{d^2 y}{dt^2} + 6t \frac{dy}{dt} - 6y = 0$