

Math 201

HOMework # 6, DUE FEBRUARY 14

**Problem 1** (2 points each)

Solve Problems 3,4,7,8,12 on page 184.

**Problem 2** (3 points each)

Find the solutions to the following initial value problems

(1) Problem 13 on page 184.

(2) Problem 15 on page 184.

(3) Problem 18 on page 184.

(4)  $2y'' + 4y' + 2y = 4te^{-t}$ ,  $y(0) = 0$ ,  $y'(0) = 1$ .

(5)  $y'' - 2y' + 2y = 2\cos(t) + \sin(2t)$ ,  $y(0) = 1$ ,  $y'(0) = 0$ .

**Problem 3** (3 points each)

Solve Problem 1, 2, 4 on page 190.

**Problem 4** (4 points each)

Solve Problems 5,7 on page 190.

**Problem 5** (4 points each)

Problem 17, 18 on page 190.

**Bonus** (10 points)

Problem 17 on page 184.