

Homework Assignments
602 MATH 384 - 01
Partial Differential Equations
Fall 2004
Dr. Goutziers

Text: **Fourier Series and Boundary Value Problems**
Author: **James Ward Brown, Ruel V. Churchill**
Publisher: **McGraw-Hill**
Edition: **Sixth**
ISBN: **0-07-232570-4**
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Office Hours: **M 01:00 pm W 10:00 am Th 01:00 pm F 10:00 am**

Assignment	Date
1) Solve the boundary value problem $u_{xx}(x) - 4u(x) = 0 \quad (0 < x < 1)$ $u(0) = 0, u(1) = 1$	Aug 25
2) Page 8 1; 2; 4.	Aug 31
3) Page 15 1; 4; 5.	Sep 03
Announcement of Quiz 1	Sep 06
Date: Friday, September 10	
Sections: 1 - 5	
4) Page 20 1; 2; 5.	Sep 13
Page 23 3.	
5) Page 29 4; 5; 6.	Sep 15
Announcement of Test 1	Sep 20
Date: Friday, September 24	
Sections: 1 - 10	
Location: PS 228	
6) Page 39 4; 5; 9; 10.	Sep 22
7) Page 47 1; 2.	Sep 29
Announcement of Quiz 2	Oct 02
Date: Friday, October 8	
Sections: 11 - 15	
Location: IRC 120AB	
8) Page 53 4; 5.	Oct 13
9) Page 64 2; 3; 6.	Oct 18
Announcement of Test 2	Oct 22
Date: Wednesday, October 27	
Sections: 11 - 23	
Location: IRC 120AB	
10) Page 72 2; 3; 7. In problems 2 and 3 compute only the Fourier cosine series.	Oct 22
11) Page 72 7; 8.	Oct 25
12) Page 72 5;	Oct 29
Page 81 2.	
12) Page 82 4.	Nov 01
13) Page 82 6.	Nov 03

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Announcement of Quiz 3 **Nov 15**
Date: Friday, November 19
Sections: 24 - 32
Location: IRC 120AB

14) Page 95 2; 5; 7; 10. Nov 15
15) Finish the problem Nov 17

$$u_t(x,t) = 7u_{xx}(x,t)$$

$$u(0,t) = 15, u(5,t) = 70$$

$$u(x,0) = x^2 \cos x$$

and plot the sum of the first fifty terms of the solution.

Announcement of Test 3 **Nov 29**
Date: Monday, December 06
Sections: 24 - 32, 39 - 43
Location: IRC 120AB

16) Page 128 6. Nov 29