

PROBLEM SET #8:

BEFORE NOON on Room 2-108.

PLEASE: Staple your answers!

The suggested problems (from the book) are ones that you should look and make sure you know how to do them. These are not problems to be handed in.

PROBLEMS FROM THE BOOK:

Sec. 5.6: 2 3b 8 12

In 3b an answer distinct from the one in the answers from the book is required.

Suggested: 1 3 5

Sec. 5.7: 4

Suggested: 1 2 3 8 12

NOTES

-- About 8: Note that the book defines stereographic projection with the Complex Plane through the EQUATOR of the Sphere. Use the book's definition.-- "Hard" problem.

Sec. 5.8: 4

Suggested: 2 8 10 13

NOTES

-- 4 and 10 are "hard". I highly recommend you try 10.

Sec. 6.1: 6 7

The answer to 7 is on the book (back).

I want you to explain how it follows.

Suggested: 1a 1d 1g 3a 3b 3c 3e 5

Sec. 6.2: 2

Suggested: 3 6 9

OTHER PROBLEMS:

8.1) Find the three terms in the Laurent series for $1/(\sin(z))^2$ that converges on the RING: $\pi < |z| < 2\pi$.

Note that the ACTUAL numbers are required, not a quote from the theorem saying that the coefficients are given by the following integrals!

In fact, those integrals are quite useless for this problem. happens near $x=0$.