

Dror Bar-Natan: Classes: 2003-04: Math 157 - Analysis I:

## Homework Assignment 25

Assigned Tuesday March 30; due Friday April 16, 2PM, at SS 1071 (notice the late due date!)

*“God created the integers, all else is the work of man.”*  
(Leopold Kronecker, 1823–1891)

**Required reading.** All of Spivak’s Chapters 25.

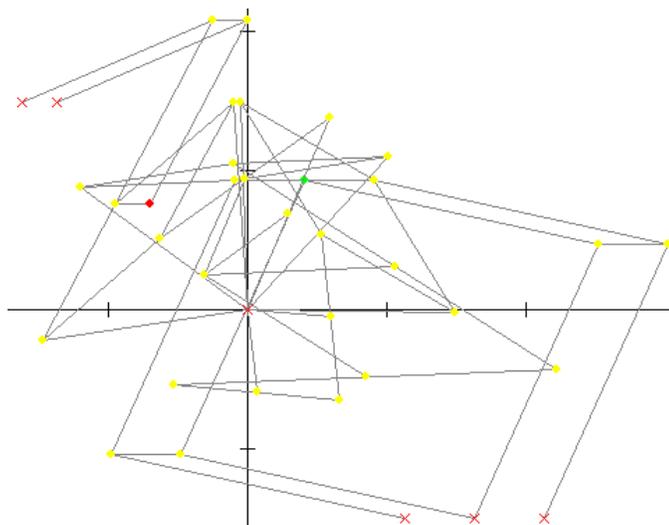
**To be handed in.** From Spivak Chapter 25: Problems 1–3 (odd parts) and 9.

**Recommended for extra practice.** From Spivak Chapter 25: Problems 1–3 (even parts), 4 and 10.

**Just for fun.** Check that for any complex number  $z$ ,

$$z^2 = \frac{1}{\frac{1}{z-\frac{1}{2}} - \frac{1}{z+\frac{1}{2}}} + \frac{1}{4},$$

play with my former student’s Dori Eldar’s Squaring Machine and read his “Linkages as Functions” page to understand how the two parts of this question are related. Links to the relevant web sites are on the web version of this assignment.



**Unrelated message.** I will be holding this weeks’ office hours on Wednesday at 12:30–1:30 instead of the usual Thursday time!