

could I say something more about "internality"?

- HW copies.
- $\mathbb{Z}/p$  is often a good "toy model" for  $\mathbb{Q}$ .
- Waves and complex numbers.
- Show [http://dimensions-math.org/Dim\\_reg\\_AM.htm](http://dimensions-math.org/Dim_reg_AM.htm) (chapter 5).
- Show Eldar's work: <http://www.math.toronto.edu/~drorbn/People/Eldar/thesis/linkfunc.htm> and <http://www.math.toronto.edu/~drorbn/People/Eldar/thesis/squaring.htm>.
- Tutorials: Evens -> UC144, Odds -> GB248

\* HW copies, About handout.  
\*  $\mathbb{Z}/p$  is often a good "toy model" for  $\mathbb{Q}$ .

Tuesday Theme: "abstraction, generalization, definition, examples."

Today's: "dream, implications, formalization & proof".

Dream Add to  $\mathbb{R}$  some number  $i$  so that  $i^2 = -1$ .

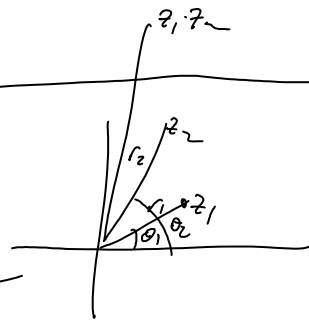
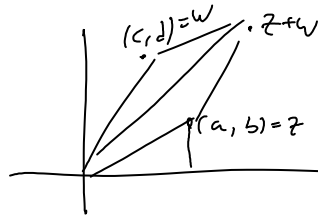
Implications must add  $7i, 3-7i, (2+3i)(3-7i) \dots$

Formally define  $\mathbb{C}$  and verify fieldness.

Thm Our definitions indeed make a field!

(Verify distributivity)

Interpretation



Dori's websites.

Waves, AC, RLC