Lecture 1

Tuesday, January 9, 2024   8:44 AM

So what is ⁱ geometry actually about?
(plane)

- points → ind. pieces of 2D pieces
- lines → 1D → "finite curve" or "straight line"

compass   ✳ straight edge

✳ Euclid's definitions from book 1 eg. 10 and 15

Postulate 1:   • - - - - •   Postulate 4:   ✳ all right-angles are equal!

Postulate 2: - - - • - - - - •- - -   Postulate 5:
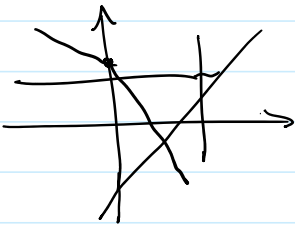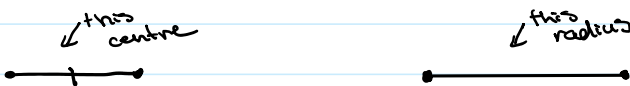
Postulate 3:   ✳ if ∡ + ∡ < ∡ + ∡
                                          then

Moulton plane: like cartesian plane

Proposition 1:   Proof ... (use compass and straign edges)

        ↙ this centre   ↙ this radius

use postulate 3 to create a triange
use postulate 1 to connect pts

use postulate 1 to connect pts
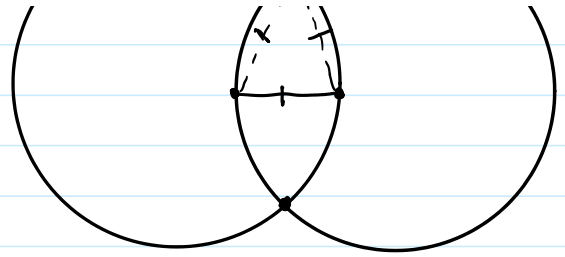
* How do you know circles actually
  intersect? — add additional
  postulates

An affine plane is a collection of pts and lines such that is
satisfies the connection axiom (postulate 1), parrellel axiom

1)

2)

3)