I have a new pen today!
Let me know if you think
my writing is better.

Lecture 19

Is there a general
bound on
$e_{k+1} - e_k$
for all iterative methods
via $\kappa(A)$? ✓

How to analyze
Floating pt Error
in iterative methods?
↳ Nick Higham's (Accur. / Stab. of Num. methods)

Is there always a small
cmpl. to minimize bw.
Error? (if not
ill-conditioned) ✓

Is a seq of Floating pt.
Ops, Bw Stable or not? ✓

In PageRank: what does
degree mean? ✓

We talk about finding roots of $ax^2 + bx + c = 0$.

What about quartic? cubic!

degree(v) is the out-going # of neighbors!

for stationary methods

$$\underline{e}^{(k+1)} = M^k e^{(0)}$$

then we can do some analysis.

$M(A)$

i.e. $M(A) = (I - \alpha A)$

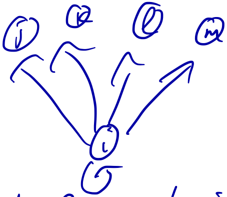
is very similar to the K(A) relaxn.

$M(A) = D^{-1}(I - A)$ (Jacobi)

$$p(x) = \underbrace{\big((1-p_1) + p_1 x\big)\big((1-p_2) + p_2 x\big) \cdots \big((1-p_n) + p_n x\big)}$$

$$\prod p_1 p_2 \cdots p_n \cdot \prod \left(\frac{(1-p_i)}{p_i} + x \right)$$

c'j



Out-degree of i is ~~4.~~ 5.