

EC1

James Propp Lyrics

in honor of Richard Stanley's 70th birthday



with:

S. Billey, C. Chan, K. Edwards, N. Li, V. Reiner, T. Roby,
L. Rose, B. Sagan, M. Skandera, L. Williams, P. Winkler

based on Frank Loesser's song

Guys and Dolls

What's in *Inventiones* ?
I'll tell you
what's in *Inventiones*.
Folks provin' theorems,
'steada figurin' odds
to use for
bettin' on the ponies.
That's what in *Inventiones* !

What's in the *Intelligencer* ?

I'll tell you

what's in the *Intelligencer*.

Articles on abstruse
mathematical questions
for which countin' plays
a role in the answer.

That's what's in the *Intelligencer* !

What's in every math journal?
I'll tell you
what's in every math journal.
Combinatorics
achievin' renown
as a fountain of truths
both beautiful and eternal.
That's what's in every math journal!

Combinatorialists
have one trusted resource;
and now it's
both a physical
and an e-source.

Yes sir!

Yes ma'am!

When you study balls
stuck in separate stalls



Then the facts that you need
are in **EC1**.



When you seek a
combinatorial truth
EC1's where you go
to see if it's so
(unless it's in Knuth).

When you see a **mu**
with a **zeta** or two
And a **delta** thrown in
for some extra fun

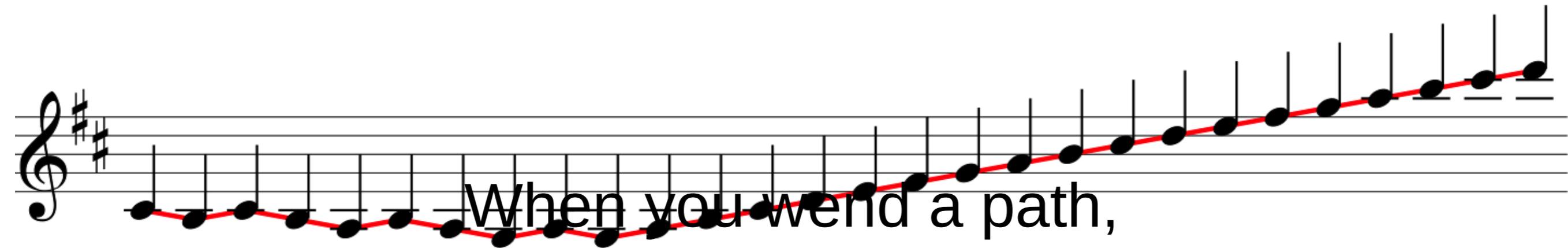
$$\begin{aligned}\mu_{\hat{P}}(\hat{0}, \hat{1}) &= (1 + (\zeta - 1))^{-1}(\hat{0}, \hat{1}) \\ &= (1 - (\zeta - 1) + (\zeta - 1)^2 - \dots)(\hat{0}, \hat{1}) \\ &= \delta(\hat{0}, \hat{1}) - (\zeta - 1)(\hat{0}, \hat{1}) + (\zeta - 1)^2(\hat{0}, \hat{1}) - \dots \\ &= c_0 - c_1 + c_2 - \dots.\end{aligned}$$

Call it odd,
call it even;
it's a principle
to believe in
That the source
you're consultin'
is **EC1**.

When you see a rook
that determines a hook
Then the book
that you're lookin' at's
EC1.

When a theorem features
a bent letter **S**
All curled up in distress,
the theorem's address
is not hard to guess.

S *n*



When you wend a path,
and some elegant math
tells the number of ways
that it can be done,

It's a true proposition
known to every
math'matician
that the opus
you've opened
is **EC1**.

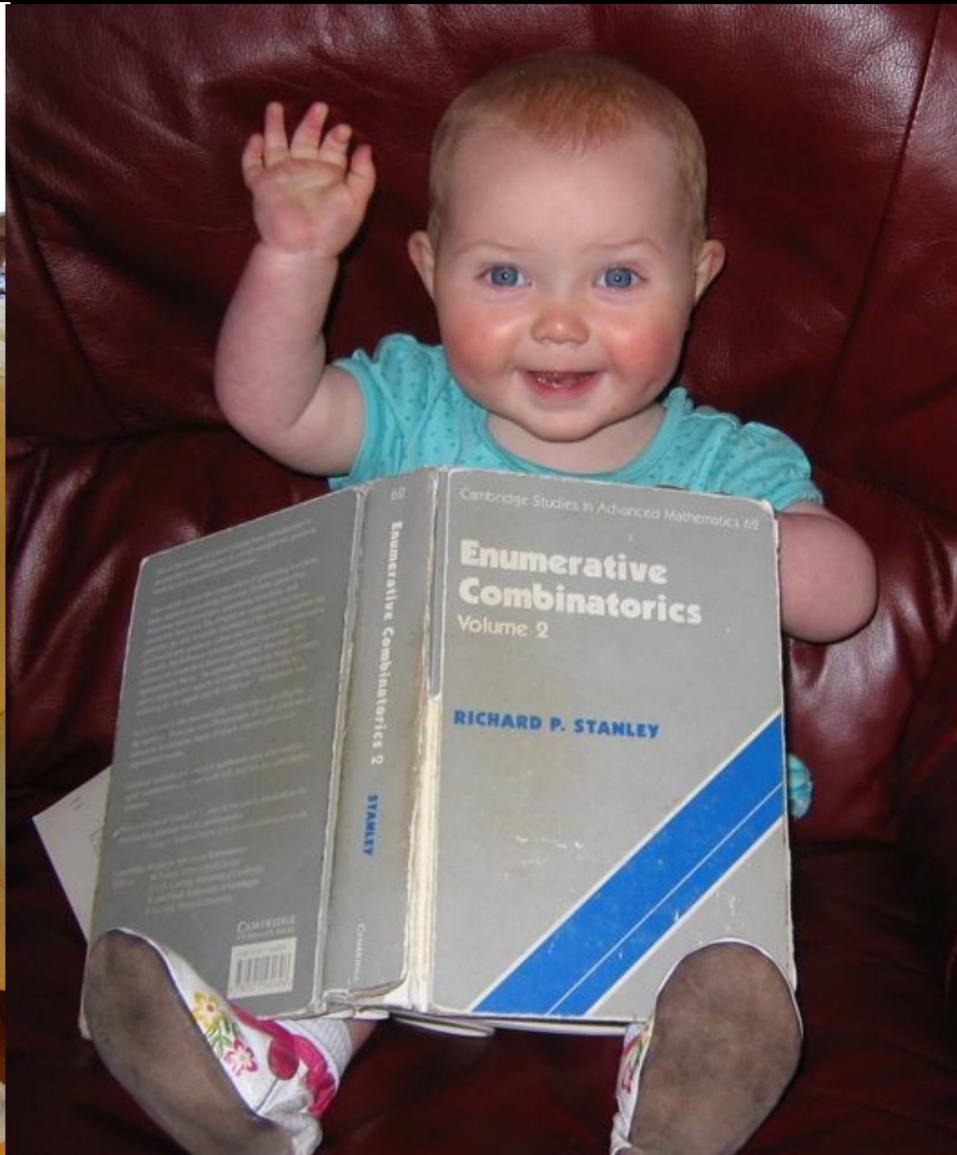
Noam: Hey, we have eight singers, and Richard is turning seventy. So the verses should be sung by quartets.

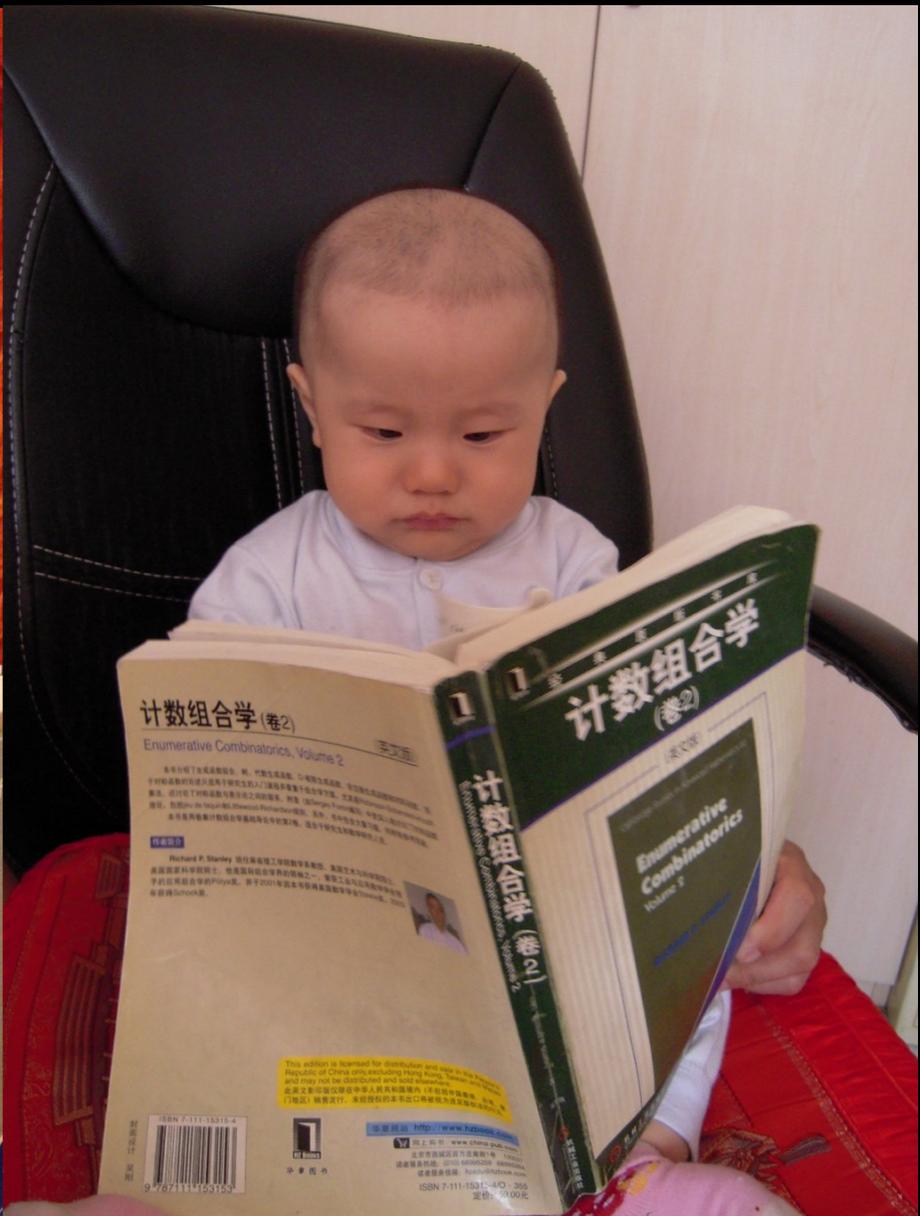
Jim: Explain?

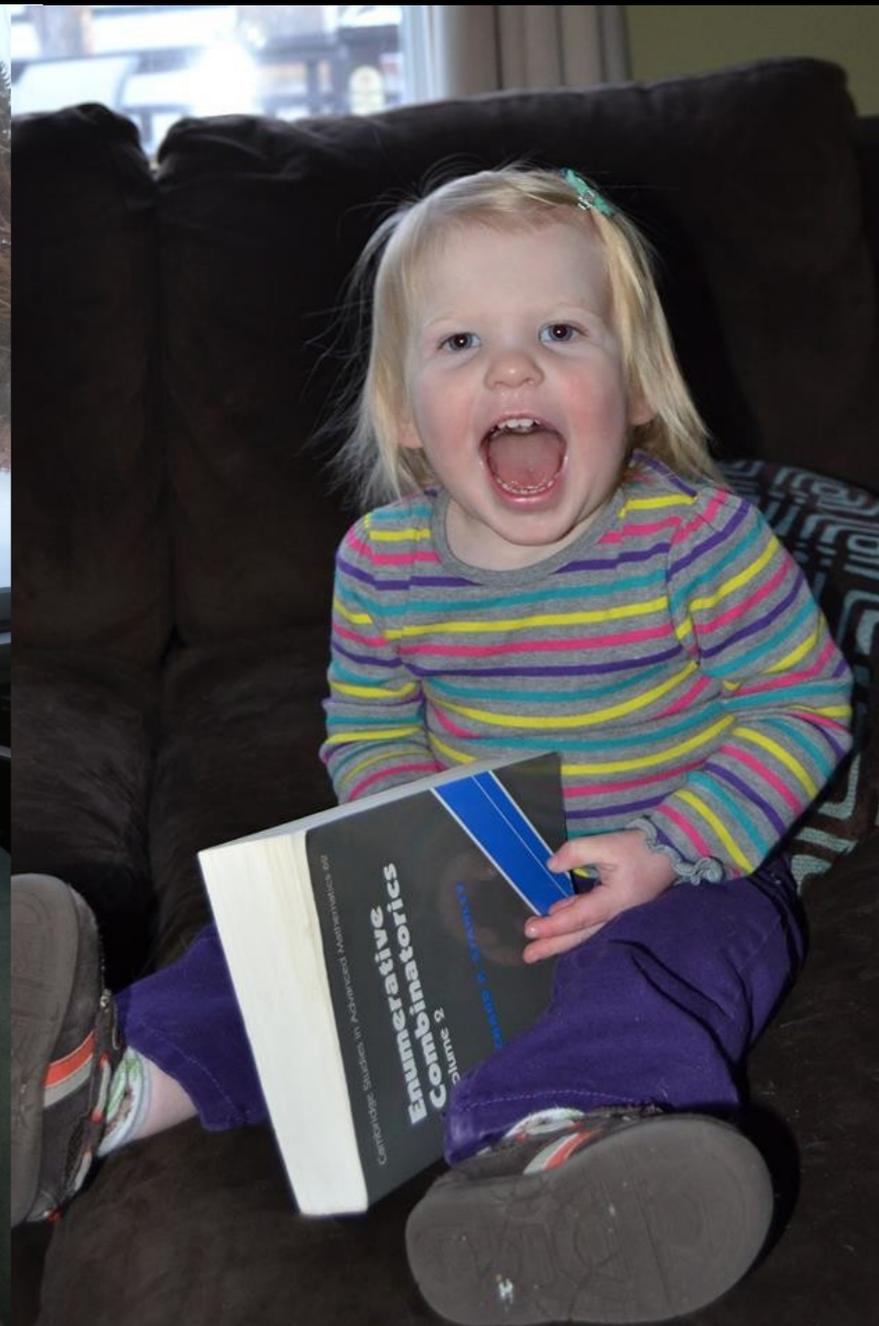
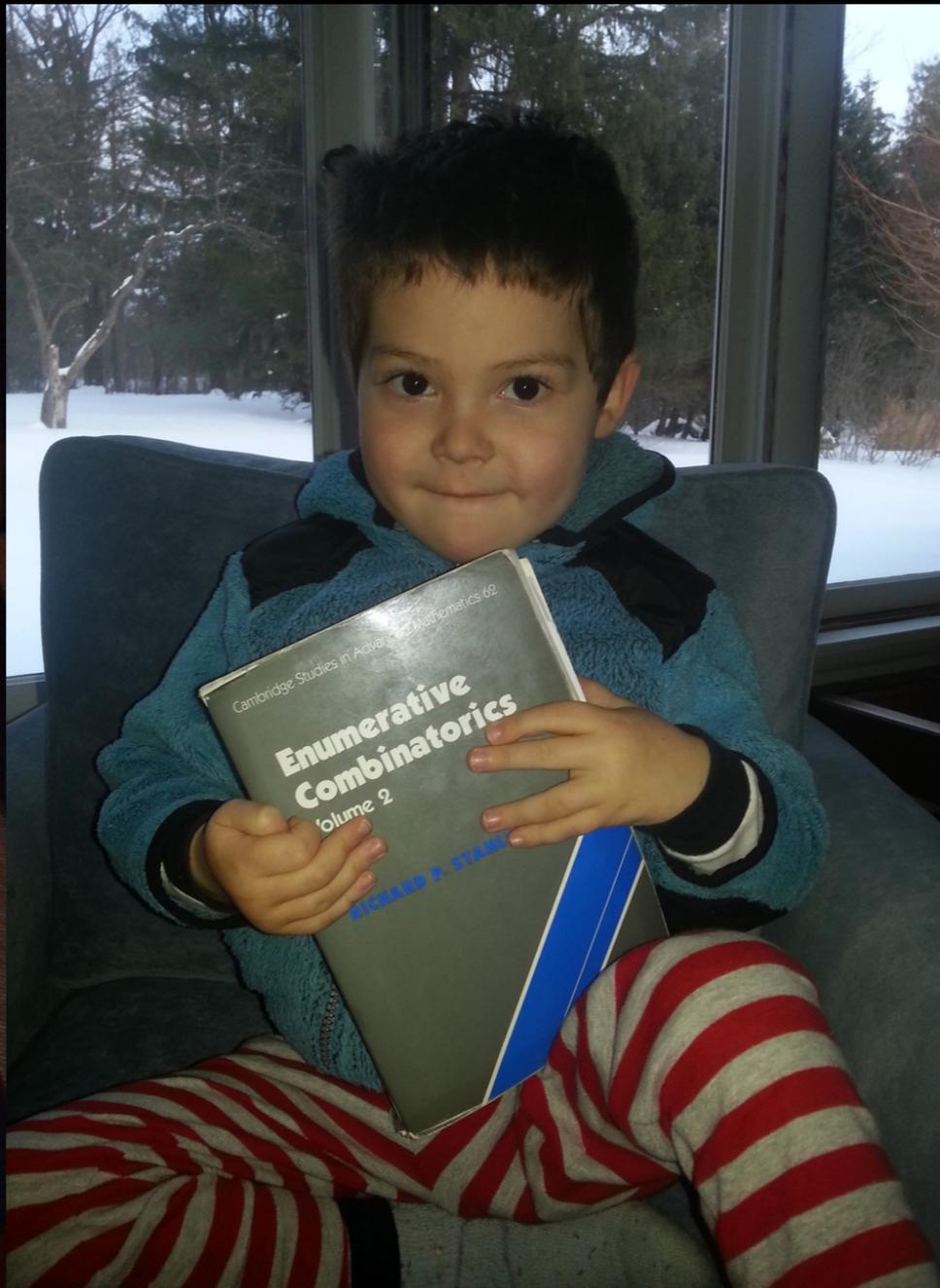
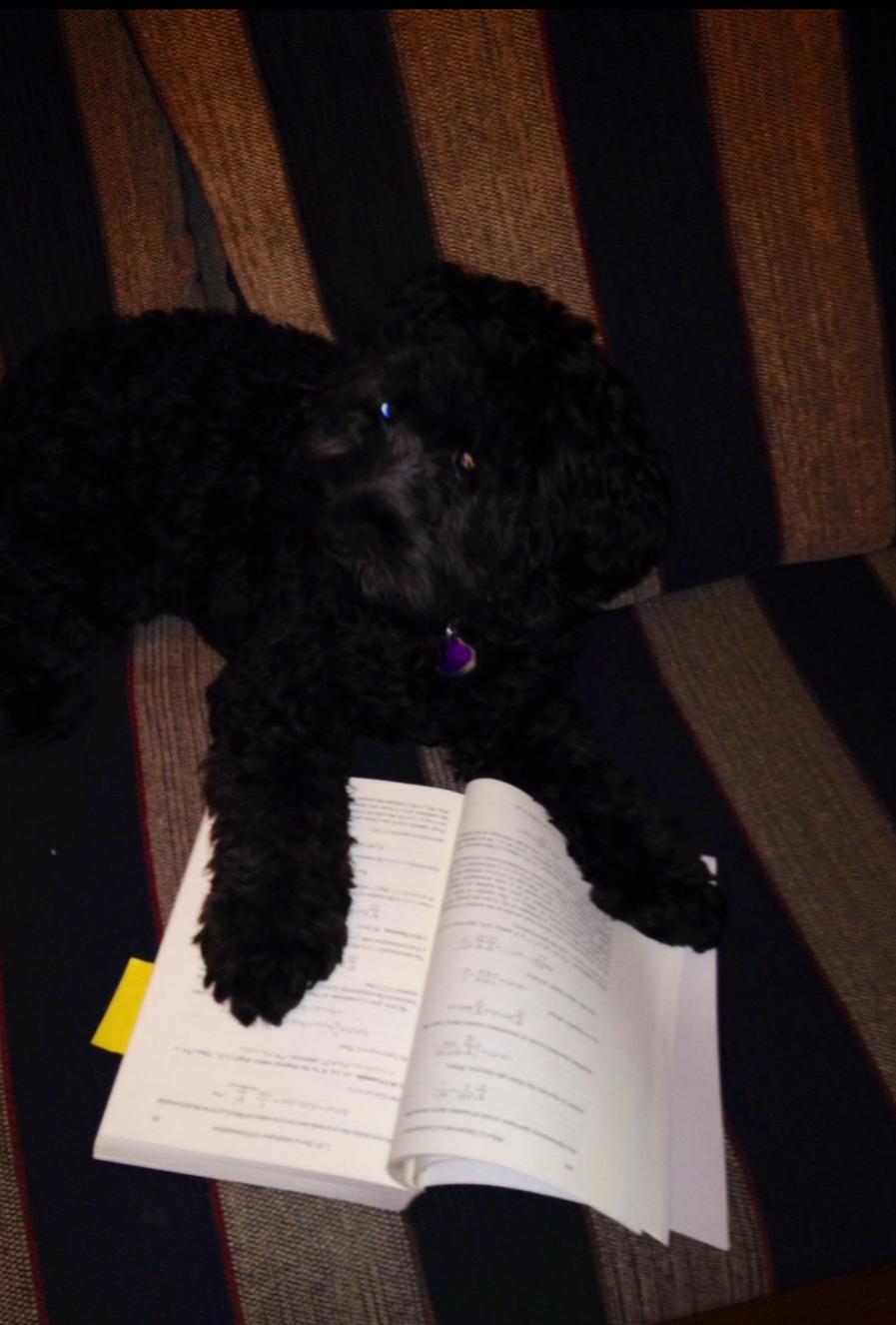
Noam: Given eight singers, we can choose a quartet in eight-choose-four ways.

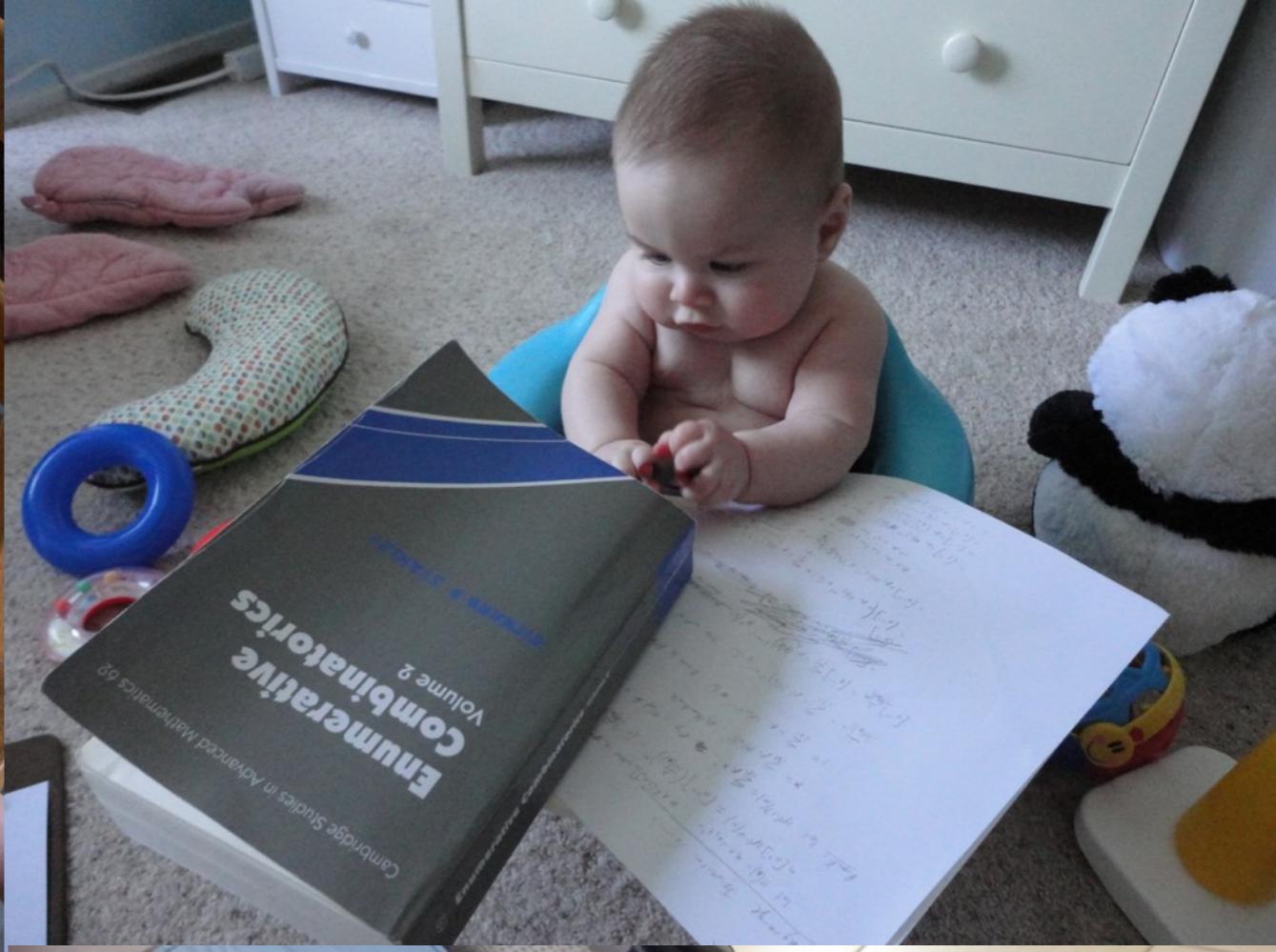
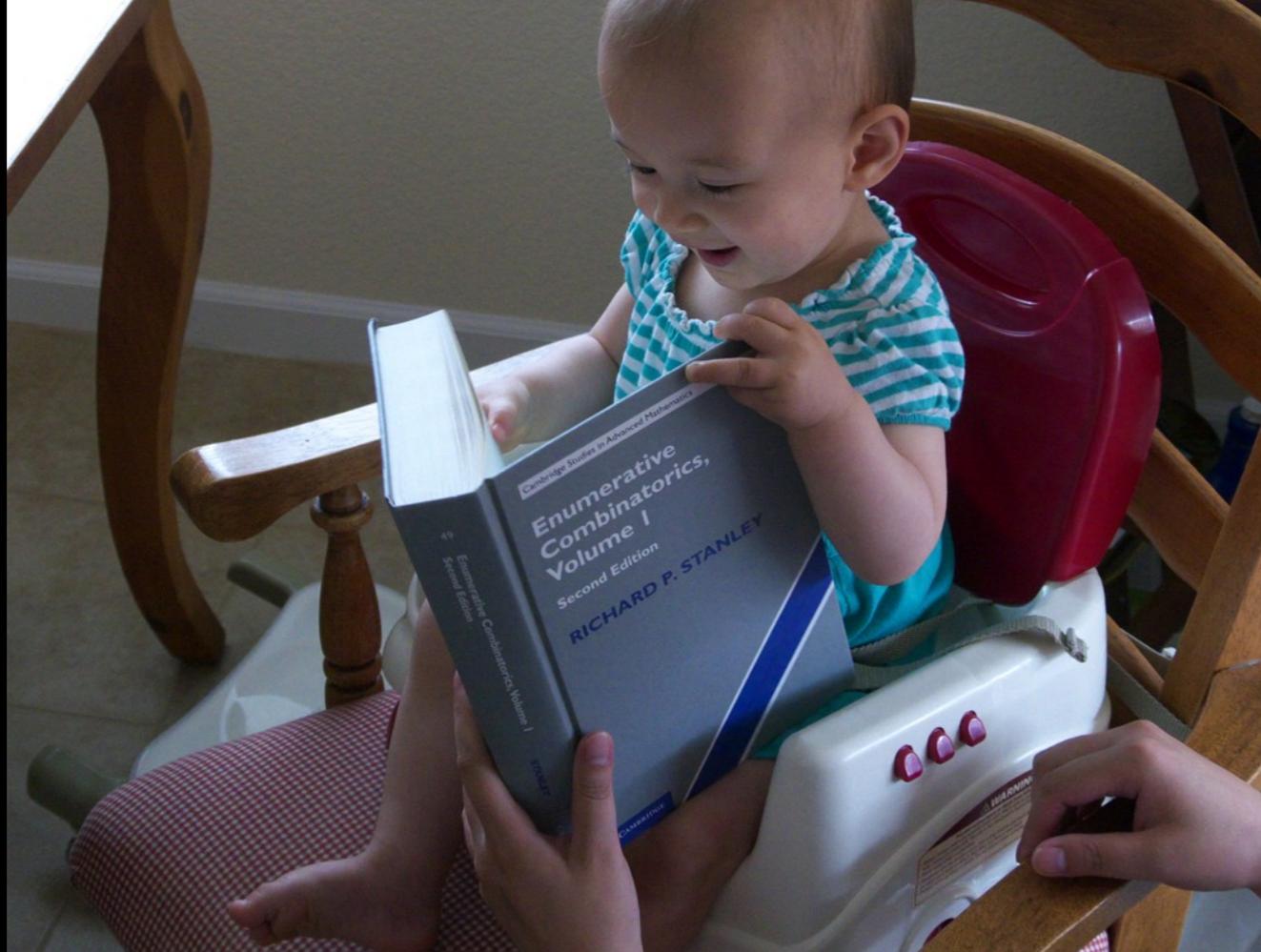
Jim: Oh, I get it. Seventy!

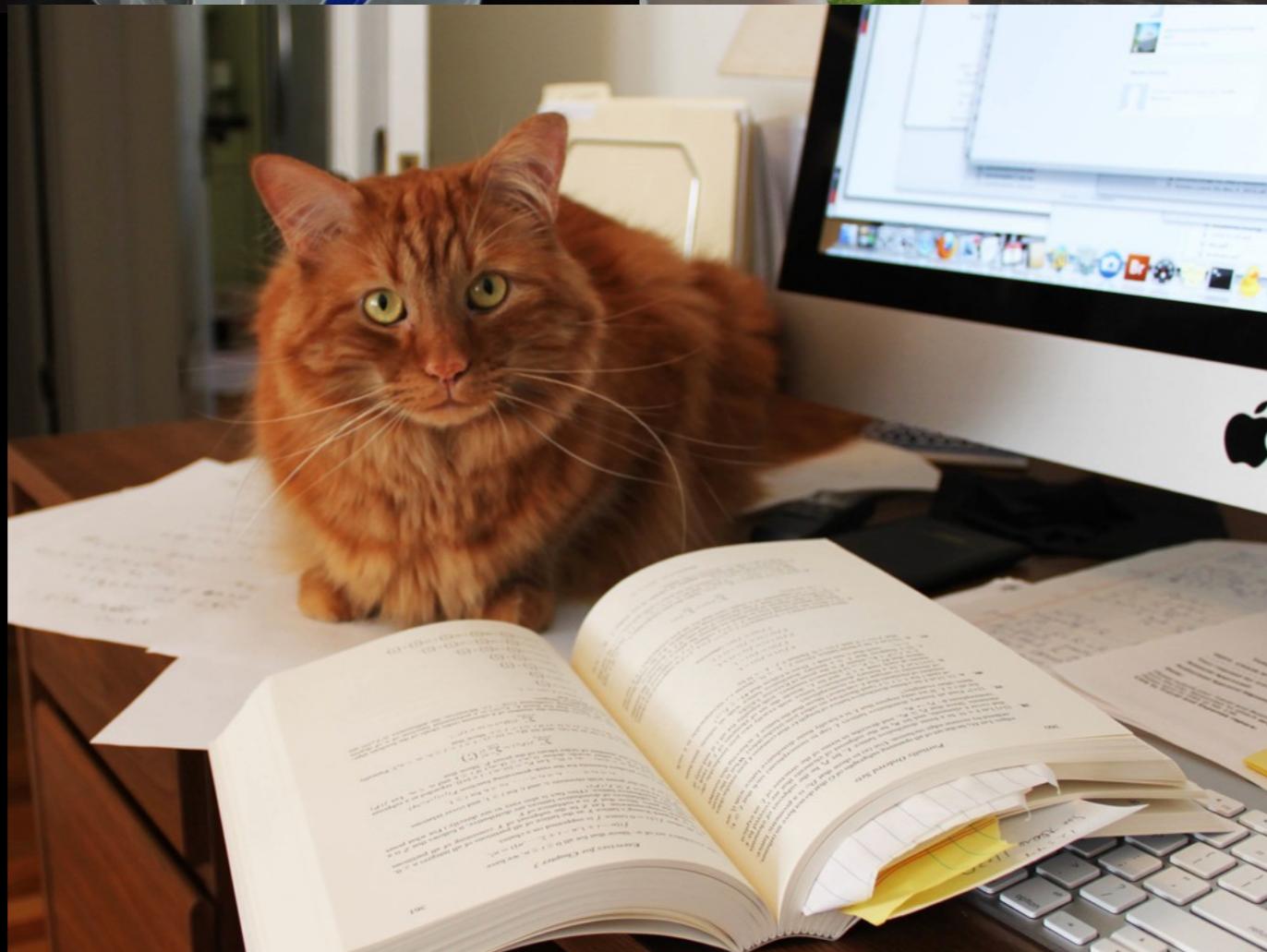
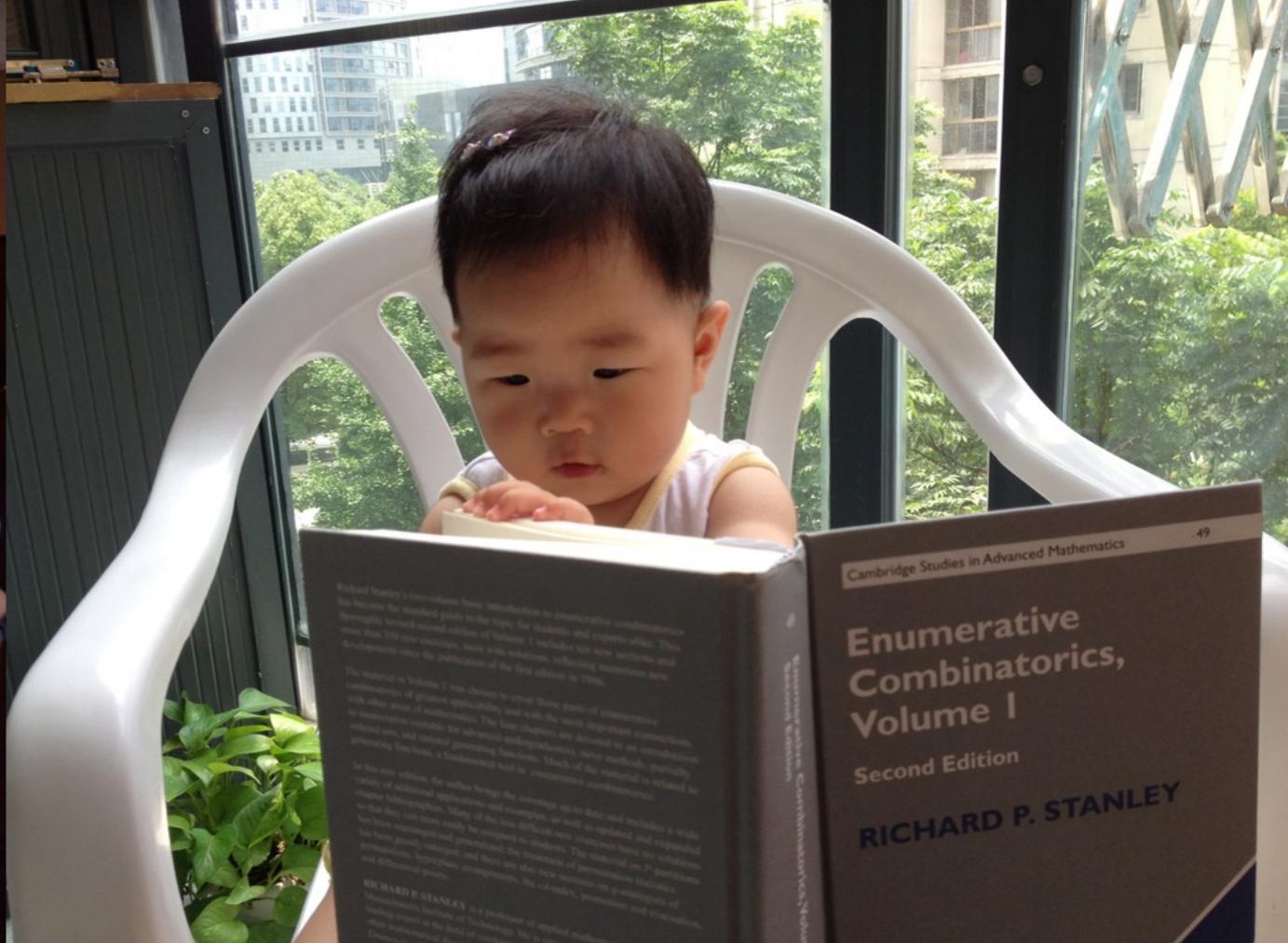
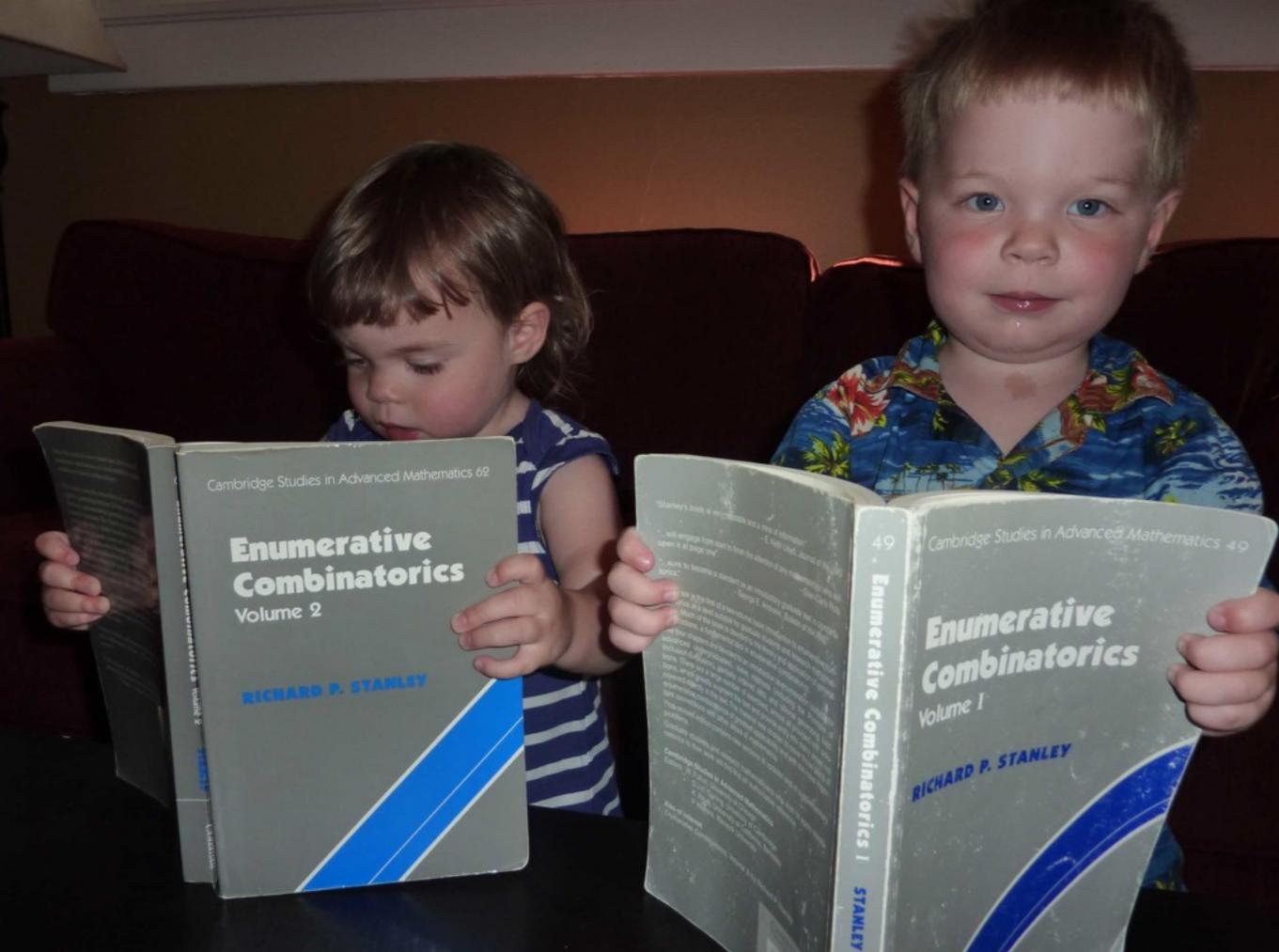
Noam: So in honor of Richard's birthday, could you write seventy verses please?









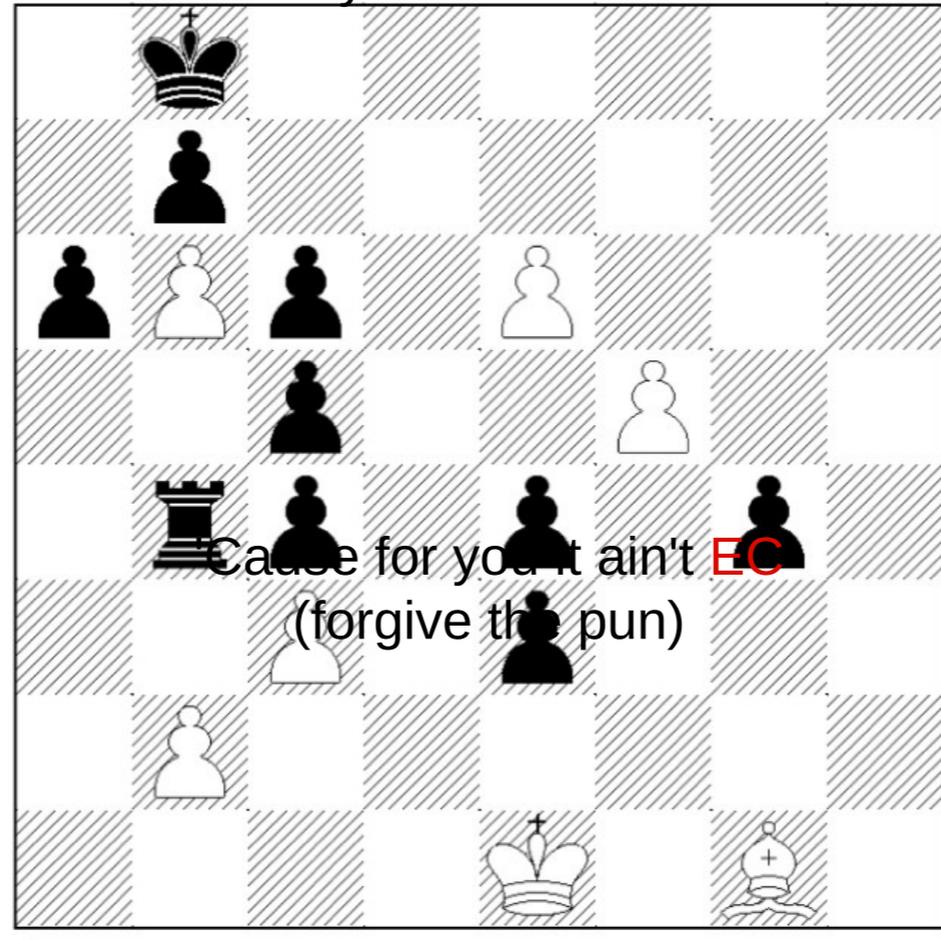


When your lovely proof
springs a leak
in its roof
Then the patch
for your goof
is in **EC1**.

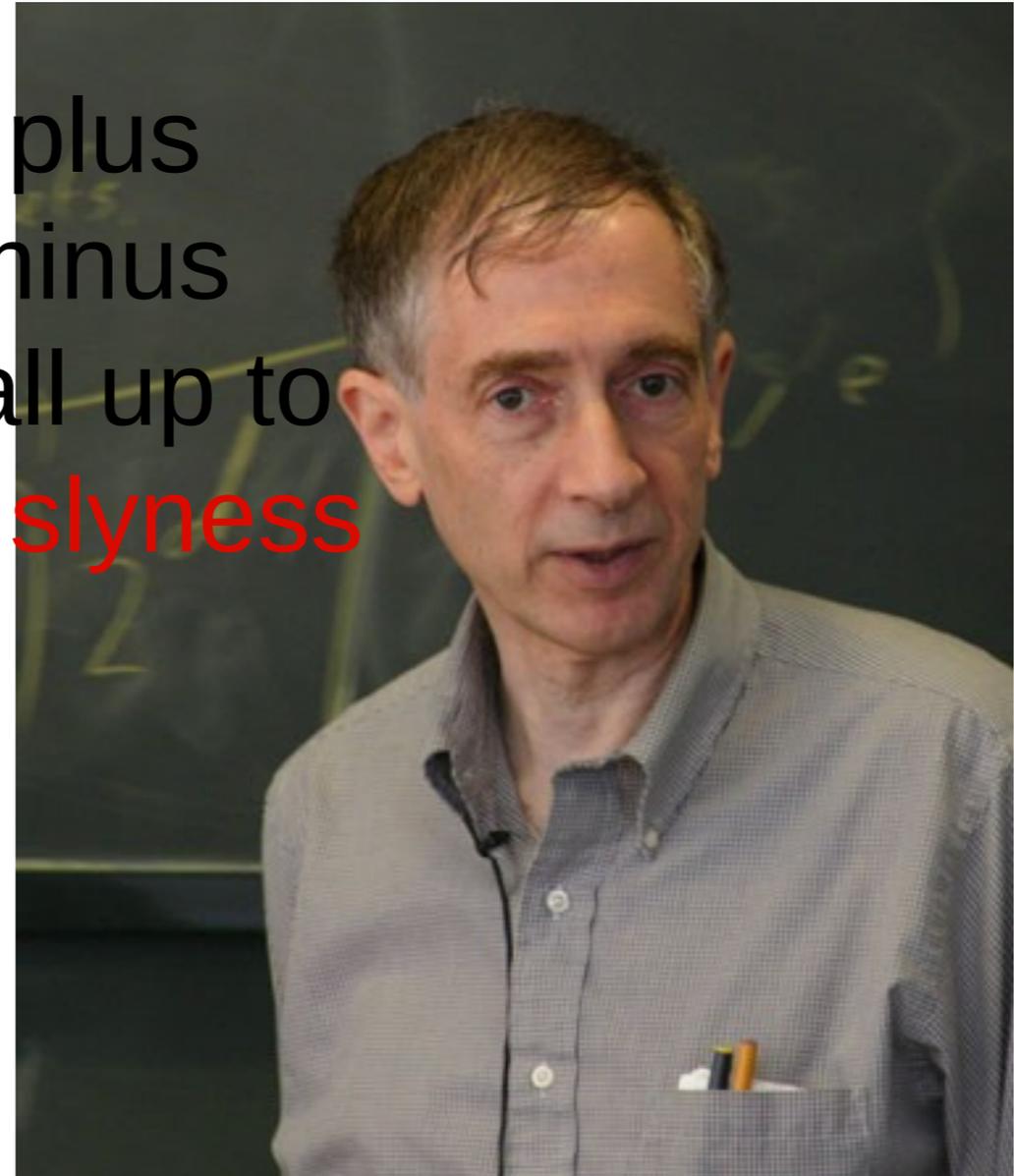
But proceed with caution.
You never can tell:
Maybe page 86
has not just the fix
but **your** proof as well!

R. Stanley

When an exercise
Suomen Tehtävät, 2005
makes you feel not so wise



Call it plus
Call it minus
Chalk it all up to
Stanley's **slyness**



'Cause the book
that has stumped you
is **EC1**
(or EC2)
The book
that you're readin'
is **EC1!**