#flo #disorganized #incomplete #inclass
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1 | Proof… presentations?

in room, 317.

1.1 | up first, karen.

- 2B, 4
- proof by example?
  - uses the contraints given by the problem? then just, plug and chug?
    - plug in knowns for free variables and solve the next?
- actully, not a proof! doesnt ask for one.
- free variables! that's the concept here.

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if it's a set, use set notation! not words
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- #review how to take notes on proof presentations.

1.2 | Anisha

- 2B, 5 going in order?
- ooh, we solved this already?
  - our solution:
    - represent every x^2 as $x^2 + x^3$, then whenever you need x^2, just subtract x^3
- seems similar up till here
- proves linear independence
  - just rearange the constants and algebra it
- proves it spans
  - just proves you can reach x^2 from every $x^2 + x^3$
- didn't explicitly say things..
  - proved linear dependence, proved span,
  - but didn't say that these are the things need for a basis

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precise. mathematical. notation! -jana
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1.3 | Malaika

- 2.B, 7
- on the quiz!
- uhoh, she says it's false.
- wait a second.. we need at least 3 vectors.. 2 vecs can't possibly fit it…
- frick, messed that up.

1.4 | Sophie

- with the same problem!
  - $V = R^4$
  - v_1 through v_4 as the standard basis. or not??
- dammit. shoulda seen that. thought that they were elements in the vectors.

1.5 | Joshua

- 2.B problem 8
- direct sum means intersection is zero,
- so when u add them together, u can just show it is linearly independent
- 0 is in the set of any span of vecs.
  - there is always a linear combo to 0! you need to show it's the *only* one.

1.6 | Davis

- 2.C 1
- does the strat of just going back and looking for stuff work?
  - jana, says, yeah! pretty solid.
- use the appropriate results and qoute them clearly.
- how to include the actual relevant info:
  - not in parentheticals?
- how to make stuff not italic!

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\DeclareMathOperator{\span}{span}
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1.7 | Caroline

- 2.C 3
- prove:
  - R^3 is a subspace of R^3!
    * reverse double containment
- planes that pass through origin in R^3 are not = R^2,
  - they are isomorphic!

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In mathematics, an isomorphism is a structure-preserving mapping between two structures of the same typ
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- this doesnt make them the same thing, but u can do the property mapping thing
- to take props from R^2 to R^3, we need to know more about isomorphic
- to show a subspace:
  - additive iden
  - SCAMUL
  - addition
  - closed
  - and, also, it needs to live in the parent space.

1.8 | Carissa

- 2.C 4
- like karen's but with polynomials

fin. until thursday.