

## David Eisenbud <de@berkeley.edu>

## **Chapter 13**

1 message

Izzet Coskun <coskunizzet@gmail.com>

Tue, Nov 21, 2023 at 11:25 AM

To: Joe Harris <a href="mailto:harvard.edu">harris@math.harvard.edu</a>, David Eisenbud <de@berkeley.edu>

Dear Joe and David,

Here are some thoughts on Chapter 13.

Best, Izzet

page 243, line 2 of chapter 13, repeated of in 'of of linear series'

page 243, line 4 of chapter 13, you might want to delete 'of chapter 11)'

page 244, line 1, the sentence `If indeed a general ...' how about something like `Castelnuovo wanted to know the number of g\_d^1s on a general curve of genus g=2d-2.'

page 245, line 2, extra 'a', 'reduced to a the proof ...'

page 245, sentence before 13.1.1, you have two periods

page 245, 2nd line of 13.1.1, should it be rho(g,r,d)? (instead of rho(p,r,d))

page 247, proof of 13.2.2, do you want to give some references? Maybe to Hartshorne's Def Theory or Sernesi's Def Theory?

page 248, proof of 13.3.1, line 8, you have 2 periods after 'a'

page 248, proof of 13.3.1, line 18, multiplication is misspelled

page 248, last line of the proof of 13.3.1, do you want (C, +0) to be (C, +)?

page 249, line 2 of 13.3.3 (necessarily rational) -> rational

page 249, line 2 of the proof of 13.3.3, do you mean to restrict M to C^0?

page 250, 2 lines after Definition 13.3.4, what does 'the largest such ideal' refer to?

page 251, line 1 of the proof of 13.3.6, you probably don't want a comma after I\_0?

page 251, line 8 of the proof of 13.3.6, as 'an' R-module

page 251, last line, C\_0' `is' a curve

page 252, line 5 of 13.4.2 should 'any' be 'and'?

page 253, line 1 of proof of 13.5.2, there is a broken reference

page 254, last sentence of 13.5, you have a broken reference

page 254, exercise 13.6.2, here you do not put a comma between the points in the secant line through p\_i and q\_i. I like this notation better than the notation used elsewhere in the book (same comment applies in Exercise 13.6.3)

page 254, first sentence of exercise 13.6.2, do you need `, all distinct' since you said that the 2h points are distinct? Later on, (r-2)-plane is better.

page 255, line 4 of exercise 13.6.4, comma after R should be a period