



David Eisenbud <de@berkeley.edu>

Chapter 4

1 message

Izzet Coskun <coskunizzet@gmail.com>

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To: Joe Harris <harris@math.harvard.edu>, David Eisenbud <de@berkeley.edu>

Dear Joe and David,

Here are some thoughts on Chapter 4:

page 93, line 3--overfull box and the corresponding black box

page 95, line 11, Reference to exercise is broken

page 96, is there a reason to change notation for the symmetric product 5 pages into the chapter? Why do you not use C_d from the beginning?page 100, the first paragraph is a little unclear. What is p' , q' ? (I think I know what you are saying, but students won't.)

page 100, sentence before 4.4, is a free 'abelian' group

page 101, proof of corollary 4.4.3, do you want a period after $H^0(\omega_{C(-D)})=g-d$?
Do you want parentheses around $H^0(O_C(D))=1$?page 102, Theorem 4.4.4, 'If $p \in C$ be a point' should be 'If $p \in C$ is a point'page 102, Corollary 4.4.5, the statement is not complete. The proof has some missing parentheses. $H^0(\omega_{C(-p)})$ in the first line is missing some parentheses. $P(H^0(\omega_C))$ in the last line is missing).

page 103, 2nd paragraph of 4.5 has a broken reference

page 103, 2nd line of paragraph after 4.5.1, extra) after Theorem 11.2.6

page 104, first sentence, do you mean every very ample divisor on a hyperelliptic curve has $h^0(D) \geq 4$? (of course, $h^0(D) \geq 3$ is also true, but I think you just proved 4 and need that for the next sentence.)page 104, line -6, W_d is 'a' Zariski-closed subset

page 105, 4 lines before 4.7, The sentence is correct as is, but do you mean to say nonreduced in both cases or do you want the first one to be reducible?

page 107, 4 lines before Exercises, you have an extra) at the end of sentence starting In fact.

Question: Does Martens' theorem have to be here? Can it be postponed to Chapter 9 or 10 when you are ready to prove it? I'll probably figure out the answer as I read the next few chapters.

page 108, Exercise 4.9.4, 'is what is called' -> better 'is called'

page 109, Exercise 4.9.8, 'Let C_d we' should be 'Let C_d be'

Best, Izzet