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## Chapter 18

1 message

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Thu, Nov 23, 2023 at 9:46 AM

To: Joe Harris &lt;harris@math.harvard.edu&gt;, David Eisenbud &lt;de@berkeley.edu&gt;

Dear Joe and David,

Here are some thoughts on Chapter 18. I feel like this chapter should come earlier in the book.

Best, Izzet

page 343, first sentence of 18, embeddings of curves

page 343, sentence before 18.1, no-one should probably not have a hyphen

page 346, I thought you were going to discuss that a smooth rational nondegenerate space quartic is a (1,3) curve on a smooth quadric in 18.3.1

page 347, line 16 of 18.3.2, it should be  $H_{\{1,3,4\}}^0$ 18.4.1, in your second analysis, the  $g=2$  quintic may be contained in a singular quadric. You might at least want to make a remark about this. (If I remember correctly, you already discussed this at length in one of the earlier chapters)

Is there a point in making sections dedicated to genus 3 and degree 7, given that these will be discussed in the exercises?

page 351, line 15, better to say  $(3g-3+g)$ -dimensionalpage 352, last line, better to use  $\left( \right)$ 

page 354, 18.9 line 22, Bezout's and Lasker's theorems or Bezout's Theorem and Lasker's Theorem

page 356, line 13, you have an extra  $)$  after  $O_Q(2,2)|_C$ page 356, line 14, missing parentheses in  $h^0(N_{\{C/P^3\}})$ page 357, exercise 18.12.1, I think you should say that  $C$  is the twisted cubic in the first linepage 358, exercise 18.12.7, would it be better to have  $m$  first and  $n$  second throughout?page 358, exercise 18.12.8, missing  $)$  at the end of the exercisepage 358, exercise 18.12.9, line 4, should it be  $h^0(N_{\{C/P^3\}})?$ page 359, exercise 18.12.13, in this exercise you followed my suggestion in 7.  
Missing parenthesis in the second to last line of this exercise, also there is a broken reference in the last line

page 359, exercise 18.12.17, The first word should be capitalized

page 360, exercise 18.12.17 (2), it should be 'Show that there is ...'

page 360, exercise 18.12.17 (3), additional 'the'

page 360, last line of exercise 18.12.19, should 'curve' be 'surface'?

In exercise 18.12.20, it may be a good idea to give a reference so that the reader knows what type 1 and 2 refer to.

page 361, in exercise 18.12.23, do you need  $d \geq 4$ ?

