

MATH 216 PROBLEM SET 9

This set is due at noon on Friday, December 4. Hand it in to Jack Hall (jhall@math) in the big yellow envelope outside his office, 380-U.

Please *read all of the problems*, and ask me about any statements that you are unsure of, even of the problems you won't try. Hand in at least thirteen solutions, where each "-" problem is worth half a solution, and each "+" problem is worth two solutions. If you are ambitious (and have the time), go for more. Up to two can be from earlier problem sets if you'd like. You should do the starred problems unless you have seen them before. Try to solve problems on a range of topics (e.g. at least one in each section of chapters 8 and 9). You are encouraged to talk to each other, and to me, and to Jack, about the problems. Some of these problems require hints, and I'm happy to give them!

Problems (from the November 19 version of the notes):

5.4.K (p. 98 in the handout), 7.2.F (if you haven't tried it, I've added two new hints, thanks to Mike, Ian, and Ilya; p. 124 in the handout), 8.2A, 8.2B, 8.2.C, 8.2.D, 8.2.E, 8.2.F-, 8.2.G, 8.2H-, 8.2.I-, 8.2.J-, 8.2.K, 8.2.L, 8.2.M, 8.2.N, 8.2.O, 8.2.P, 8.2.Q, 8.2.R, 8.2.S, 8.3.A*, 8.3.B, 8.3.C, 8.3.D, 8.3.E, 8.3.F, 8.3.G, 8.3.H, 8.3.I, 8.4.A, 8.4.B, 8.4.C, 8.4.D, 8.4.E, 8.4.F-, 8.4.G, 8.4.H, 8.4.I, 9.1.A, 9.1.B, 9.1.C, 9.1.D, 9.1.E+, 9.1.F, 9.2.A, 9.2.B, 9.2.C, 9.2.D, 9.2.E, 9.2.F, 9.3.A, 9.3.B, 9.3.C, 9.3.D, 9.3.E, 9.3.F+, 9.4.A-, 9.4.B+* (any four count for one problem), 9.4.C, 9.4.D, 9.4.E, 9.4F, 9.4.G, 9.4.H, 9.4.I, 9.4.J, 9.5.A, 9.5.B, 9.5.C.

The usual additional (mandatory!) question: (a) Which problems did you particularly like, and why? (b) Which ones did you like less? (c) What is the most confusing topic so far? (Thanks to everyone who has answered this question in the past!)

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