

MATH 341
WRITTEN HOMEWORK 2
DUE JANUARY 22, 2020.
INSTRUCTOR: ROBERT LIPSHITZ

Reminder. Homework is due at the *beginning* of class on the due date.
Required textbook problems (hand these in):

- §1.4: 7, 12, 15, 18, 19, 23(a,b,c,e,f), 24(b,c,d,e), 31, 36.
- §1.5: 2, 3, 10, 22, 26, 29, 30, 38.
- §1.6: 3, 5, 14.
- §1.7: 1, 2, 3.

Suggested practice (don't hand these in):

- Please read and make sure you can do the practice problems in sections 1.4, 1.5, and 1.6.
- Please read and use for review problems 1.5.23, 1.5.24.
- If you had trouble or got help with any of the assigned problems, solve another, similar problem (or two).

Bonus points. An extra 10% of the homework score will be awarded for correctly following the tutorial on using Sage for linear algebra computation, at <https://blogs.uoregon.edu/math341wi20lipshitz/> . For this week:

- (1) Follow the steps in the post “Vector algebra, implicit and parametric descriptions of solution sets” (i.e., type in all of the displayed code in your own worksheet, and make sure that the output you get makes sense and matches the posted screenshots reasonably closely).
- (2) Answer the two questions “What does `solve_right` do if there's no solution? What about if there's more than one solution?” from the post by doing some corresponding computations.
- (3) Use the Sage worksheet to check your answer to exercise 1.4.12.
- (4) Print out the worksheet you create, and hand it in for full credit.

The bonus part should all take about half an hour; if it's taking you much longer, talk to me or a classmate for help.

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