

UH - Math 4377/6308 - Dr. Heier - Spring 2020

HW 4

Due 02/13, at the beginning of class.

Use regular sheets of paper, stapled together.

Don't forget to write your name on page 1.

1. (2 points) Section 1.4, Problems 2(e), and 2(f). (You may use any method you like to solve the systems. Just make sure that you provide all details and that your answer is correct.)
2. (1 point) Section 1.4, Problems 3(e), and 3(f).
3. (1 point) Section 1.4, Problem 15.
4. (1 point) Section 1.5, Problem 1. (Just say true or false, no further explanation necessary.)
5. (1 point) Section 1.5, Problem 9.
6. (2 points) Section 1.5, Problem 20.
7. (1 point) Are the three 4-tuples  $(1, 2, 3, 4)$ ,  $(0, 1, 1, -1)$ ,  $(1, 0, 1, 6)$  in  $\mathbb{R}^4$  linearly independent? Prove your answer.
8. (1 point) Section 1.6, Problem 2(a) and 2(b).