UH - Math 3336 - Dr. Heier - Fall 2019
HW 7
Due Thursday, Oct. 10, at the beginning of class.
Solutions may be handwritten. Use regular sheets of paper, stapled together.
Do not forget to write your name on page 1.

1. (2 points) Let n be an integer. Prove that either

$$n^2 \equiv 0 \bmod 4$$

or

$$n^2 \equiv 1 \bmod 4.$$

2. (2 points) Section 4.3, Problem 5

3. (2 points) Section 4.3, Problem 19

4. (1 point) Section 4.3, Problem 26

5. (2 points) Section 4.3, Problem 33 b,c. Also, in each case, find the Bézout coefficients.

6. (1 point) Solve the congruence $2x \equiv 7 \bmod 17$.