UH - Math 3336 - Dr. Heier - Fall 2019
HW 6
Due Thursday, Oct. 3, 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) Section 2.5, Problem 2

2. (2 points) Section 2.5, Problem 11 (no proofs necessary, just give the examples)

3. Let n be a positive integer and A be an $n \times n$ matrix of real numbers. If we write $A = (a_{ij})$, let the *transpose* be defined by $A^t = (a_{ji})$. Now, for two $n \times n$ matrices of real numbers, prove

(a) (1 point) $(A + B)^t = A^t + B^t$

(b) (1 point) $(A \cdot B)^t = B^t \cdot A^t$

4. (2 points) Section 4.1, Problem 14

5. (1 point) Section 4.1, Problem 19

6. (1 point) Section 4.1, Problem 26