1. (1 pt) September 5, 2019
   Let A be an $n \times n$ matrix. True or False? If $AB = I$, then $BA = I$
   Solved by: Paul Tsai and Kevin Brodie (two different solutions) on: September 5, 2019

2. (1 pt) September 12, 2019
   Let A be an $n \times m$ matrix. True or False? If A_E and A'_E are reduced raw echelon forms of A, then $A_E = A'_E$.

3. (2 pt) October 22, 2019
   Let A and B be two $n \times n$ matrices. Prove that $\det AB = \det A \det B$.

4. (2 pt) November 5, 2019
   Let $|\cdot|$ be a norm and $B_1 = \{\mathbf{x} \ : \ \mathbf{x} \in \mathbf{R}^n, \ \sum_{i=1}^{n} |x_i| \leq 1\}$. Show that there is $M > 0$ so that $|\mathbf{x}| \leq M$ for each $\mathbf{x} \in B_1$.

5. (1 pt) November 5, 2019
   True or False? l_p with $0 < p < 1$ is a norm.

6. (1 pt) November 7, 2019
   True or False? A convex function $f \ : \ \mathbf{R}^n \to \mathbf{R}$ is continuous.

7. (1 pt) November 7, 2019
   True or False? If $|\cdot|$ is a norm on $\mathbf{R}^n$, then for each $\mathbf{x} \in \mathbf{R}^n$ one has $|\mathbf{x}| \leq \sum_{i=1}^{n} |x_i|$.