## MATH 202: VECTOR CALCULUS READING QUESTIONS FOR WEDNESDAY WEEK 2

Problem 1. A square matrix is orthogonal if $A^{\top} A=I$. Give a short proof that $\operatorname{det}(A)= \pm 1$ whenever $A$ is orthogonal.

Problem 2. Interpret Theorem 1.3 in light of Theorem 3.1. Why does this make sense geometrically?

