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 $det(A) = \pm 1$ whenever *A* is orthogonal.

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