Proposition 41: If A triangle shares a side with a parallelogram, and the third vertex of the triangle lies on the extended opposite side of the parallelogram, then the area of the parallelogram is twice that of the triangle.

Proof: Let ABC and ABDE be a triangle and a parallelogram with C on $\overleftrightarrow{DE}$. We need to show Area(ABDE)=2Area(ΔABC). By postulate 1, we draw BE. Since EC||AB, Area(ΔABE)=Area(ΔABC), by Proposition 37. By Proposition 34, Area(ABDE)=2Area(ΔABE). Thus, by CN1, Area(ABDE)=2Area(ΔABC), as claimed. QED