

Activity 26.8 and Activity 26.9 work as a warmup for the proof of Theorem 26.6. In the first activity we see an example of two normal subgroups whose internal product fails to decompose  $U_{28}$ . In this case Theorem 26.6 still applies and from part 2 of this theorem we see that every element of the internal product is unique. This uniqueness is important when decomposing a group. In Activity 26.9, we find two normal groups whose internal product forms a decomposition of  $U_{28}$ . Every element of this internal product is unique as stated in Theorem 26.6.