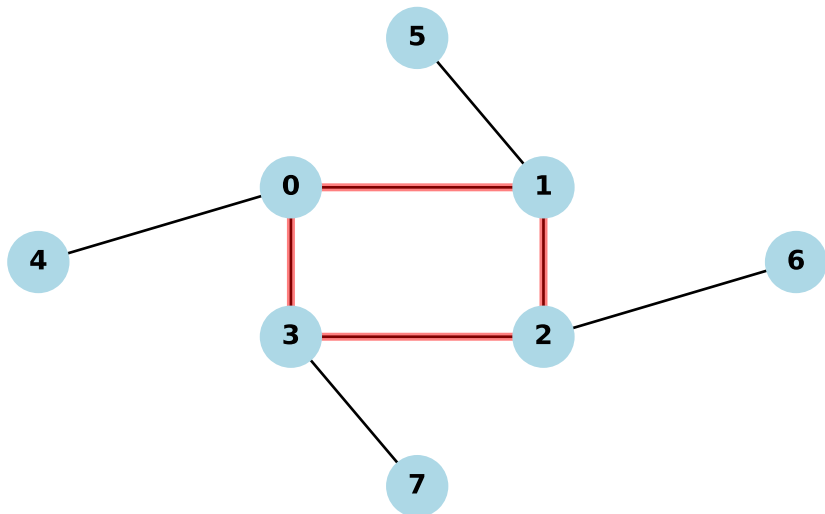# Refined C_4 Reduction: Isolated 4-face → edge

Original: Refined C_4
(Isolated 4-face, distinct neighbors)

Reduced: Edge xy
$x : [u_1, y, u_3], \ y : [u_2, u_4, x]$