5. Pre-image: Q(0,0), R(-13,0), S(0,12)

Rotate the figure 270° clockwise about the origin	
Translate the figure according to (x,y)→(x+5,y+5)	

6. Pre-image: T(6,-3), U(8,-5), V(7,-7), W(5,-7), X(4,-5)

Translate the figure according to (x,y)→(x-4,y+3)	
Reflect the figure over the line $y = x$	
Rotate the figure 180°	