

10. This will be a rotation of  $120^\circ$ , with point C being the center of the rotation.

14. Original Points: P( 2, 2 ) N( 3, -1 ) B( -1, -2 )

after  $T_{\langle 2,2 \rangle}$ : P'( 4, 4 ) N'( 5, 1 ) B'(1, 0 )

after  $R_{y=x}$ : P''( 4, 4 ) N''( 1, 5 ) B''( 0, 1 )

20. Original Points: A( 6, -4 ) B( 5, 0 )

after  $Rl_1$ : A'( 6, -4 ) B'( 7, 0 )

after  $Rl_2$ : A''( 2, -4 ) B''( 1, 0 )

This would be a translation of 4 to the left.

24. This would be a rotation of  $180^\circ$  about point O

30. This is a Glide Reflection:  $(R_{y=0} \circ T_{\langle 12,0 \rangle}) \triangle EDC = \triangle PQM$

36. This is a Glide Reflection:  $(R_{x=4} \circ T_{\langle 0,4 \rangle}) \triangle PQM = \triangle KJN$

40. Not necessarily. It COULD happen (ex.  $(R_l \circ r_{180^\circ})$ ), but it will not always work.