Transformations

Define the following:

Reflection:

Line Symmetry:

Dilation:

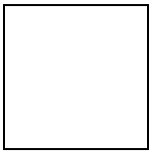
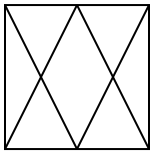
Rotation:

Translation:

Point Symmetry:

For numbers 1-4, use the triangle with coordinates A(2,1), B(3,1), and C(5,3).

1. Reflect the triangle over the y-axis. Label the coordinates A′B′C′
2. Reflect the triangle over the line y = x. Label the coordinates A″B″C″
3. Dilate the triangle D_{-3}. Label the triangle A‴B‴C‴
4. Translate the triangle with a translation of $T_{-3,5}$. Label the triangle A⁗B⁗C⁗
5. If a tranlation maps (3,1) onto (4,-2), what is the image of (4,-1) under the same translation.
6. Draw all lines of symmetry for the following:

a) M b) H c)  d) 

7. Transformation D_k maps (-3,6) to (-1,2). What is the value of k? What is the image of (-6,-12) under the same transformation?