

# Rigid Motion (7)

## Transformations

Rigid

isometry (also called)

NON-rigid

like dilation —  
not the same and  
shape or the  
not the same size

Translation

each pt in image is  
= distant from correspondy  
pt in the original. points  
move on parallel paths.

Has distance  
direction

translation vector

no symmetry

reflection

isometry where each  
pt is a mirror image  
of the original  
(across a line, =  
distance)

~~the~~ reflectional

symmetry —  
must have a  
line of symmetry

does not  
preserve  
orientation

original: also called pre-image.

rotation

isometry where  
all pts of the  
original rotate a  
specific # of degrees  
around a point.  
(fixed center)

Counterclockwise  
if not stated  
rotational symmetry.  
360° is not symmetry.