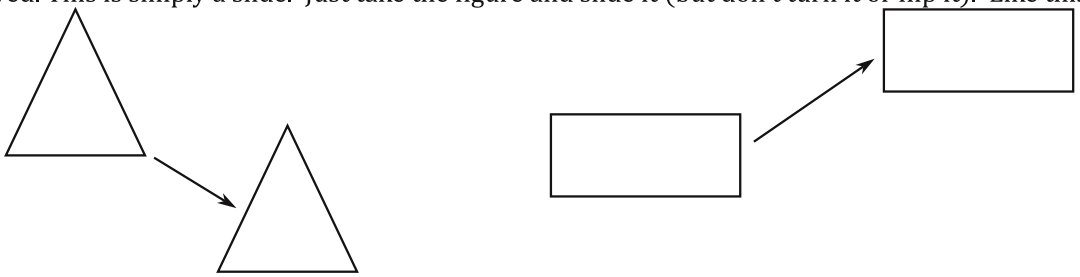
Transformations

More than meets the eye...

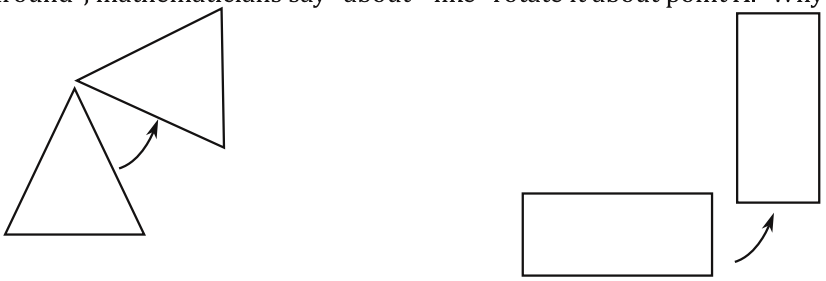
Well no, we can't turn a geometric figure into a walking, talking robot, but we can move it around a little. (Maybe if you pass geometry and become an engineer you can make something slightly more exciting.)

In all the transformations except one, the figure stays exactly the same size and shape. With a dilation the shape is maintained, but the size is changed. Let's look at an example of each.

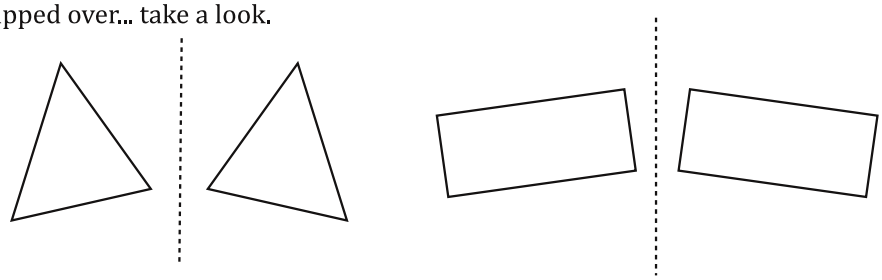
Translation: A transformation in which the figure maintains its shape and orientation, but is moved. This is simply a slide. Just take the figure and slide it (but don't turn it or flip it). Like this...



Rotation: This is simply a turn. You can turn it on its middle or around a point. Instead of saying "around", mathematicians say "about" like "rotate it about point A." Why? Who cares... here it is.



Reflection: A reflection is a mirror image...like...your reflection. You can also think of it as being flipped over... take a look.



Dilation: This is the one where the shape changes size, but still does not change shape. In fact that is the only thing that changes. To dilate means to "get bigger".