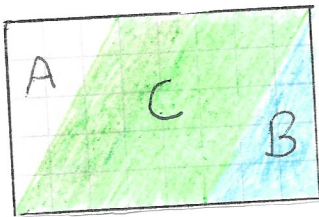


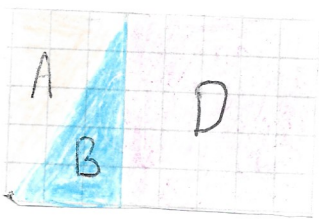
Shear Magic

To work out the area of the parallelogram, you could do many things such as taking away the area of the triangles from the area of the rectangle that A, B and C form. To work out the area of a triangle, the formula is $\frac{h \times w}{2}$ (height times width divided by 2). This is what the rectangle D represents - taking away the area of A and B ~~away~~ from the large rectangle.

Now, as demonstrated you can play around with making similar diagrams with different parallelograms. This is an example:



Followed by this:



While doing this, I worked out how to calculate the area of a parallelogram. You simply have to times the ~~length~~ ^{base} ~~one of it~~ by the ~~width~~ ^{height}. Why? This is so because a parallelogram is like a rectangle's top two coordinates being shifted to either the left or right side but in equal amount. This will result in the parallelogram, ~~if~~ if you break it down, having three shapes - a

triangle on each side and a rectangle in the middle. ~~This will have the same area as the~~ The parallelogram will have the same area as the original rectangle.

The formula to work out a triangle is base x height. This is so because a triangle is when you think about it, half of a rectangle or parallelogram. If you were to rotate the same triangle 180° and connect the longest side of that triangle to the original triangle, it would make a rectangle or parallelogram.