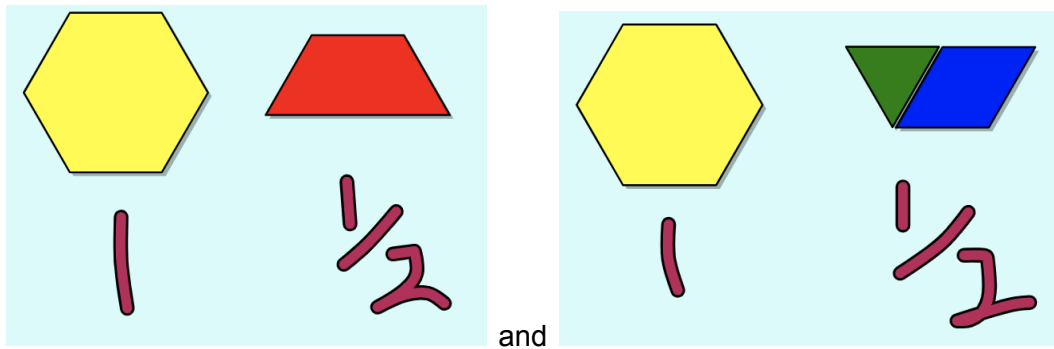


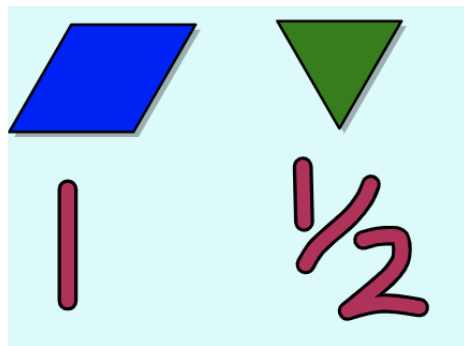
## Making One and a Half - Quick notes for teachers

This task requires students to think flexibly and creatively about fractions. Have students work in small groups with physical pattern blocks, one hexagon, one trapezoid, one rhombus and one triangle, and make drawings to capture and explain the different ways they make  $1\frac{1}{2}$ .

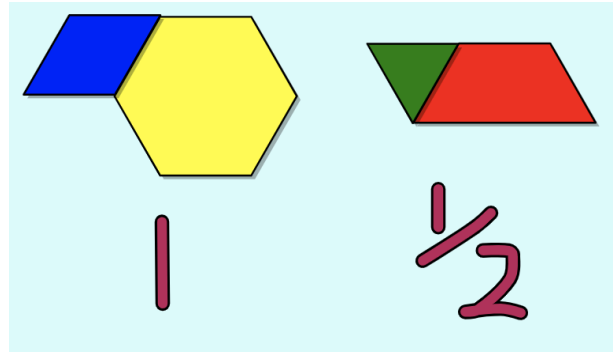
You will likely find that students will fairly quickly find two ways of making one and a half, namely calling the hexagon "1" and the trapezoid " $\frac{1}{2}$ ", and a second method where the hexagon is again "1" and the rhombus and the triangle together form the " $\frac{1}{2}$ ".



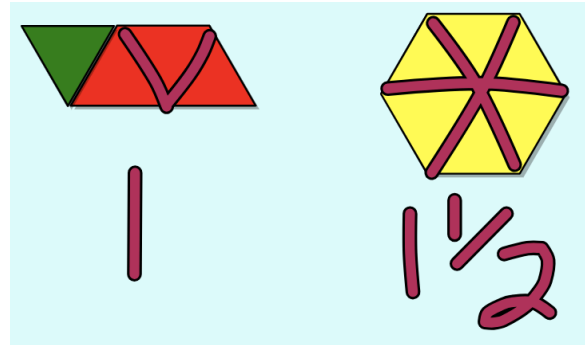
After this they may start to struggle. This is good. The idea is that students will themselves have the "aha" moment that they can decide that "1" does not have to be the hexagon but could in fact be another shape, in which case they may well come up with the rhombus as "1" and the triangle as " $\frac{1}{2}$ ". This is fantastic creative thinking.



Keep pushing them to see if they can find other ways of making  $1\frac{1}{2}$  - there are at least 5, if not many more once you start being really creative! Here are two further examples.



and



**Note:** You may be familiar with similar tasks where students use multiple triangles to create equivalent fractions models with pattern blocks. This is NOT that task. It is really important to drive home the idea that you only have **one** of each of the blocks when you are making any model. This limitation on the number of blocks is what forces the creative thinking and pushes the students to realize that they can redefine what one is and thus solve the problem.