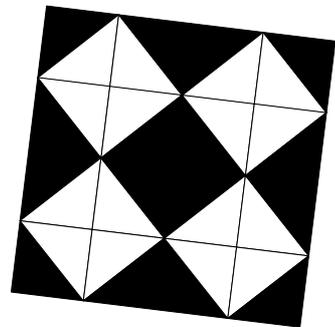
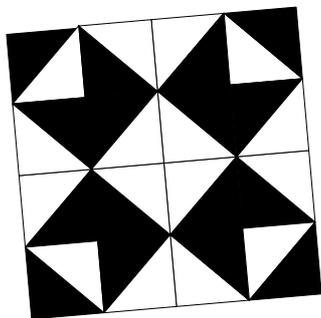
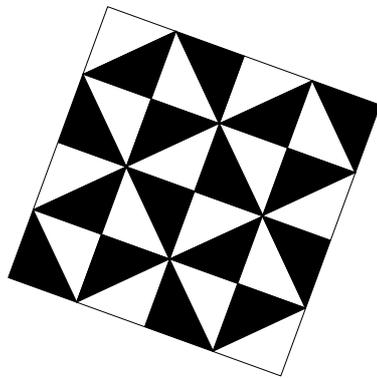


SHAPE SHADE

THE NO COLOUR COLOURING BOOK

Fascinating geometric designs to colour
using nothing but an ordinary pencil



PAT ASHFORTH AND STEVE PLUMMER

©Pat Ashforth and Steve Plummer

First published in 1997
by Assign Publications
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All the designs in this book are based on a shape like this

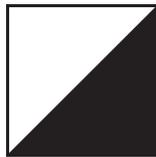
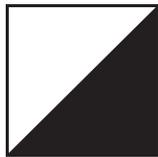


You might think there's not a lot you can do with a simple square but you'd be wrong. With nothing but some grids and an ordinary pencil you can create thousands of stunning designs.

First there are some puzzles to get you started but you don't have to begin at the beginning. The book has loose pages so you can take it apart and use them in any order.

How many black shapes can you make by putting two of these squares together?

Cut out some of the shapes at the back of the book, to help you.



The black parts must join to form a complete shape, not separate areas.

The squares must touch edge-to-edge.

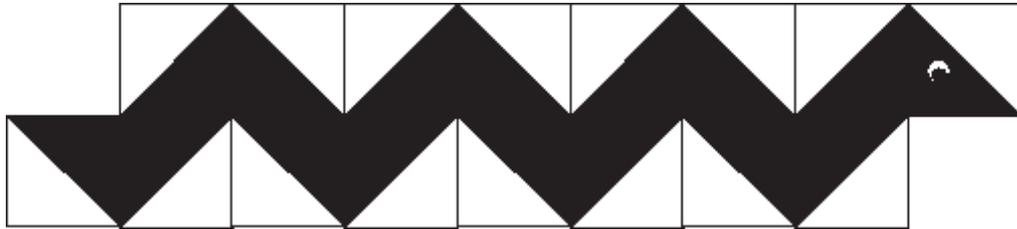
How many black shapes can you make if you use three squares?



How many from four squares?

(You will find answers at the back of the book)

If you use the same rules and continue to add squares, some of the patterns you have found could carry on for ever. Extend any that you find interesting.



You might like to investigate how many ways you can put together the 2, 3 or 4 squares if you ignore the rule about having to make just one black shape.

Make up your own rules. For example:

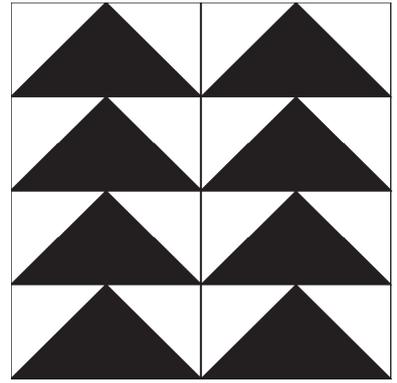
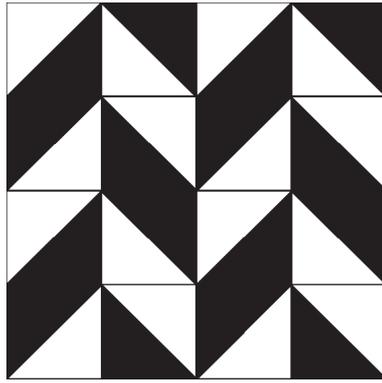
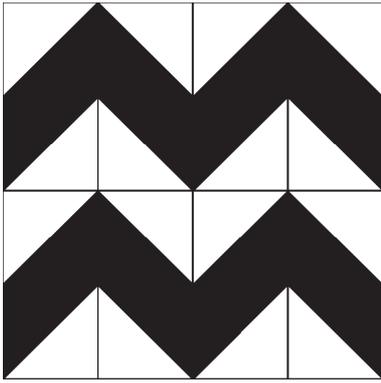
- No black pieces should be touching.
- There must be two black shapes.
- The squares must be in a line.

While you are using the half black, half white squares all of your complete designs will be half black and half white. Change this rule if you want to. You could even add colours!

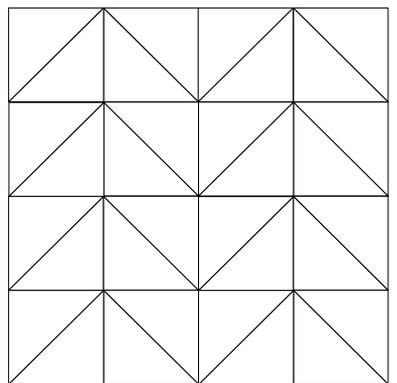
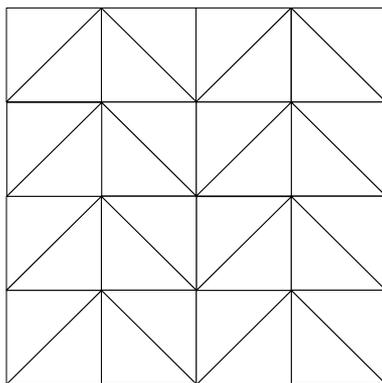
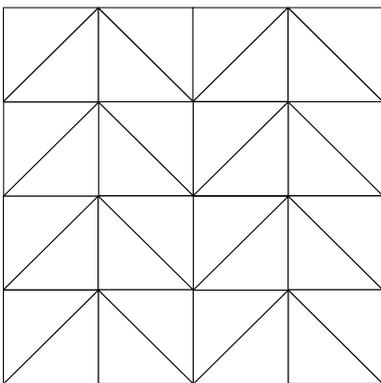
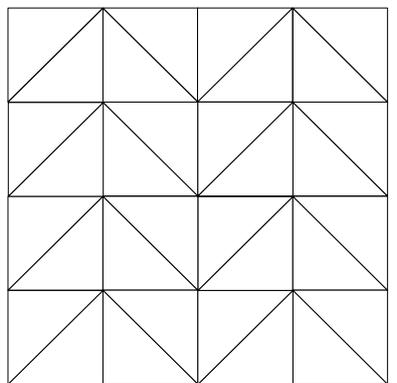
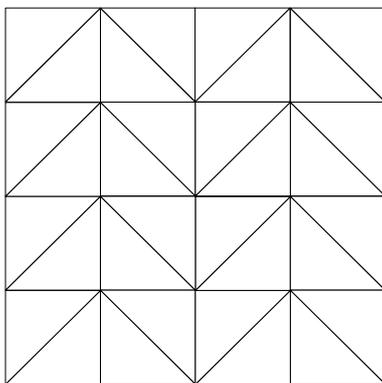
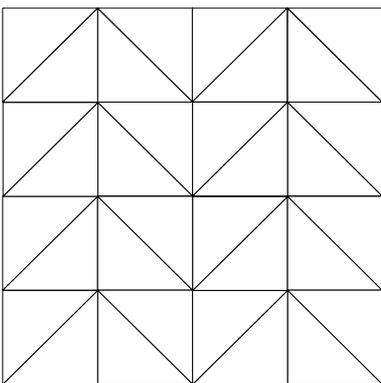
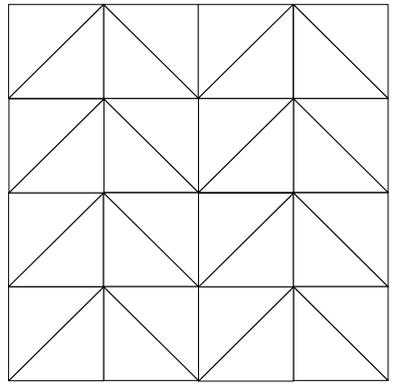
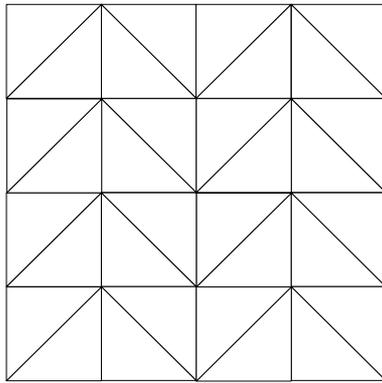
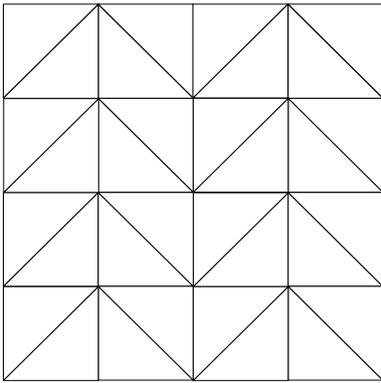
When you have finished investigating the patterns you can make with a small number of squares move on to using 16 squares on a 4 x 4 grid. Cut out the rest of the 16 squares on the card at the back and arrange them on the grid. You could make up some rules for yourself before you begin.

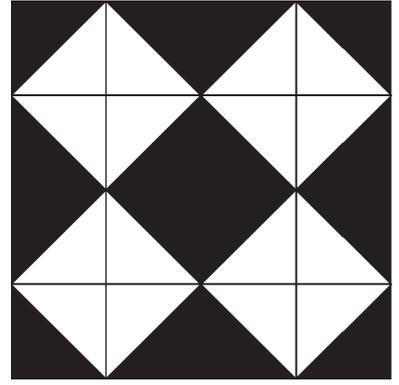
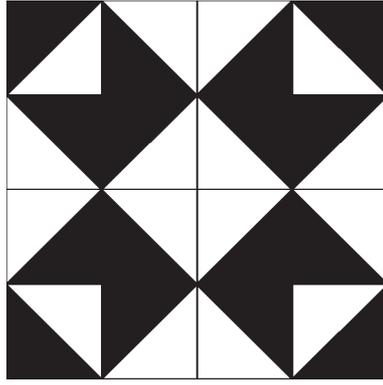
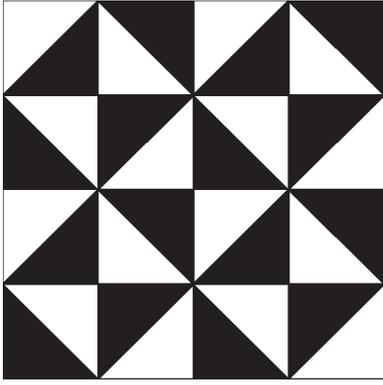
- The pattern must have reflection symmetry.
- The pattern must have rotation symmetry.
- Every black shape should be made from two triangles.

Use any rules you like - or just have fun.

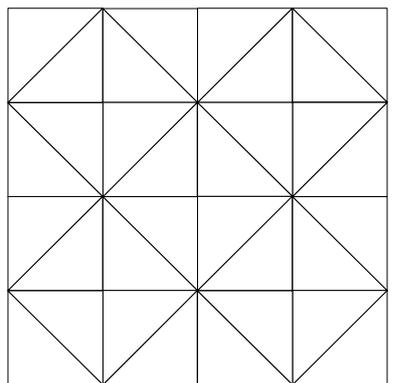
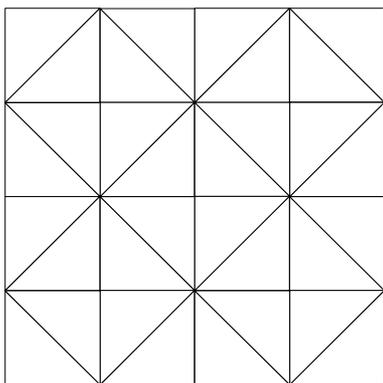
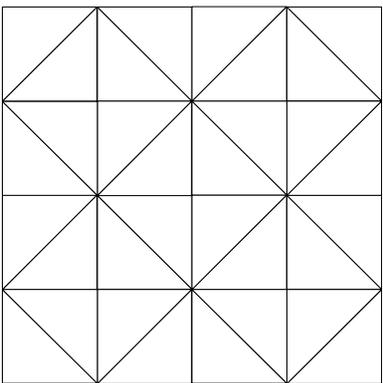
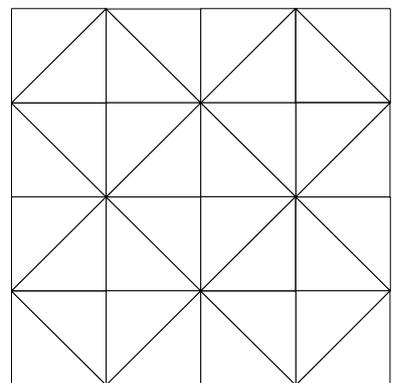
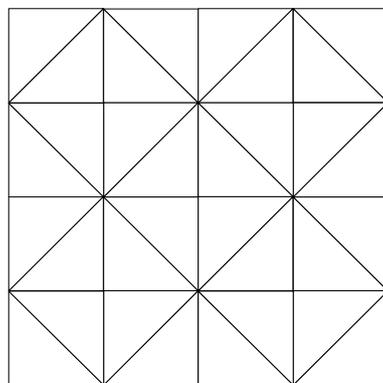
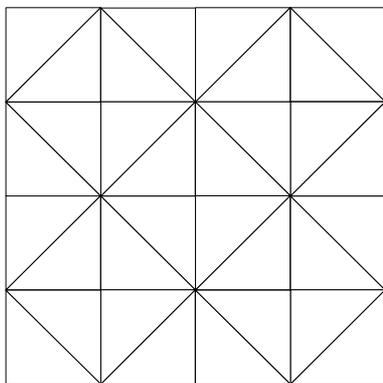
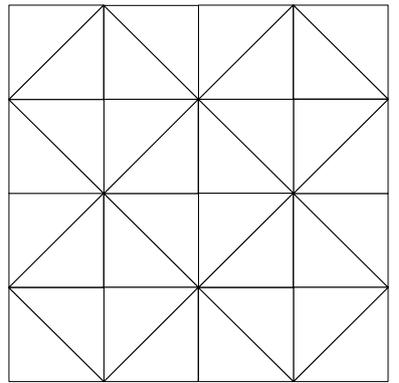
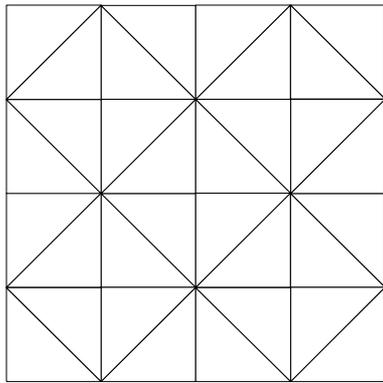
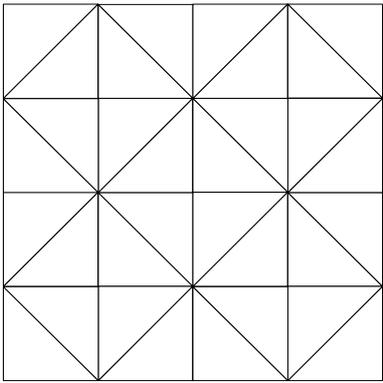


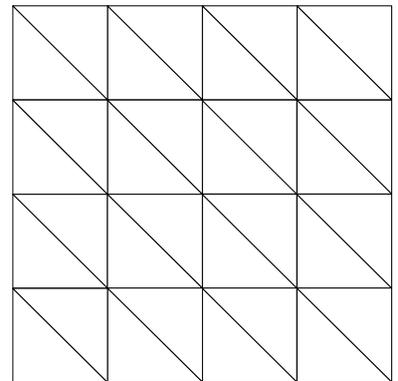
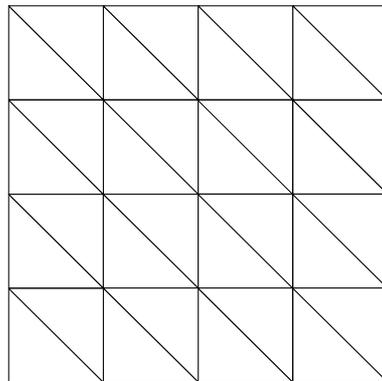
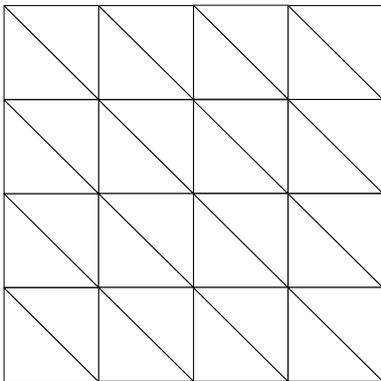
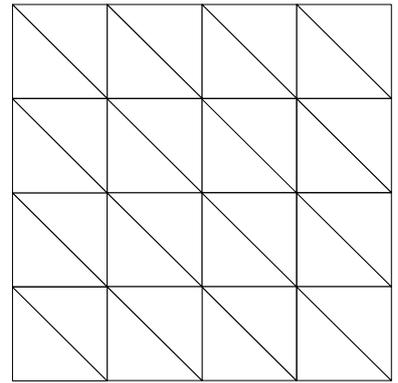
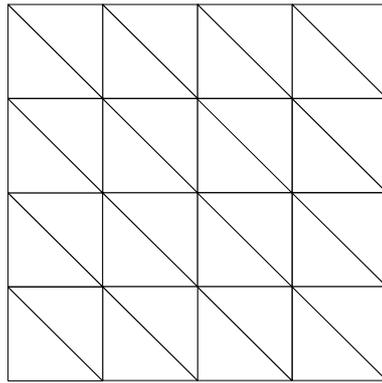
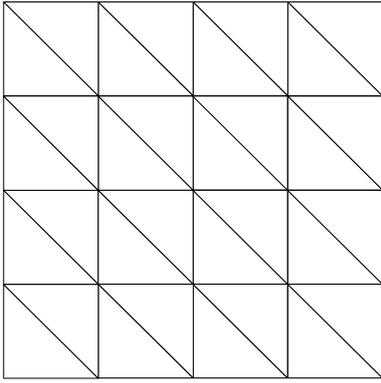
The same grid has been used for all of these patterns. Colour the others yourself.



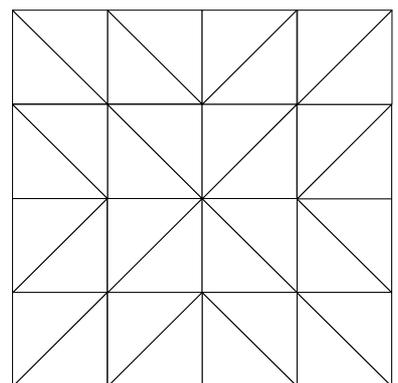
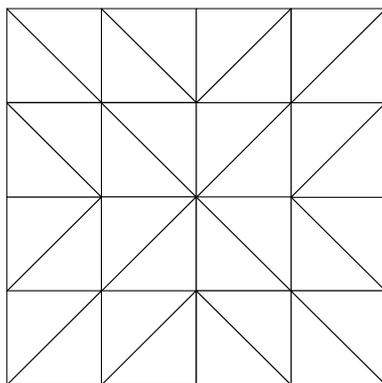
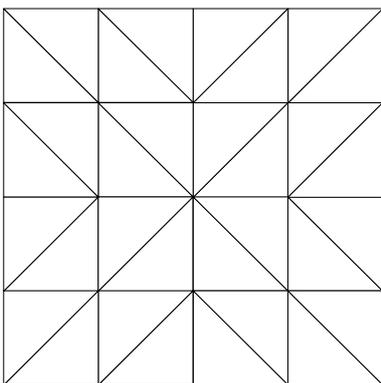
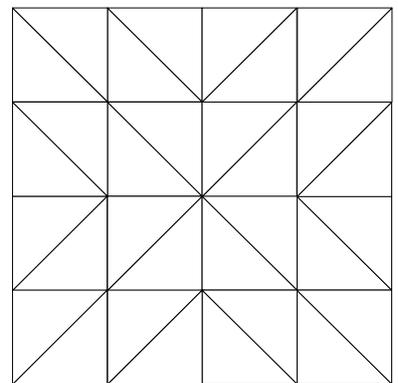
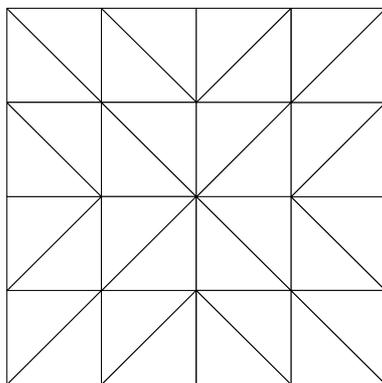
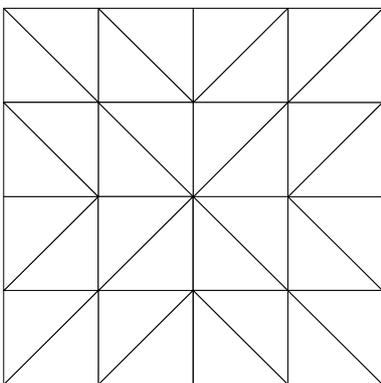


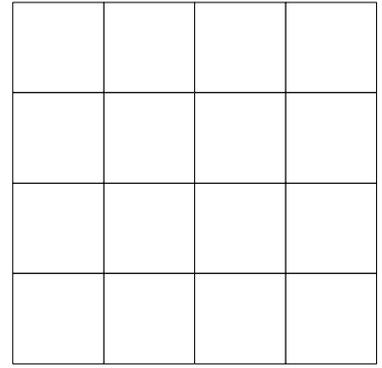
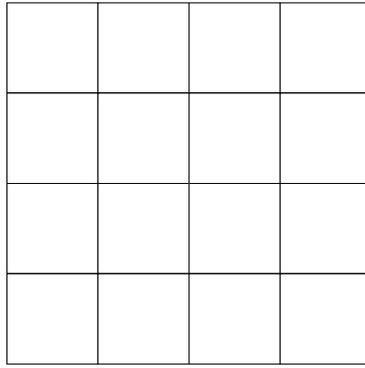
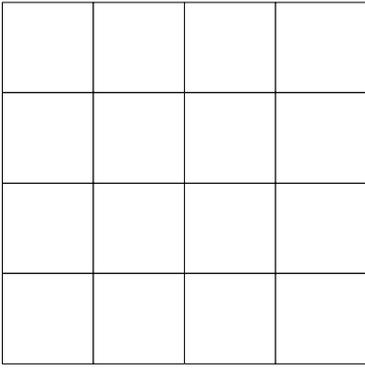
These three patterns were created from the same grid. Make up some more of your own.



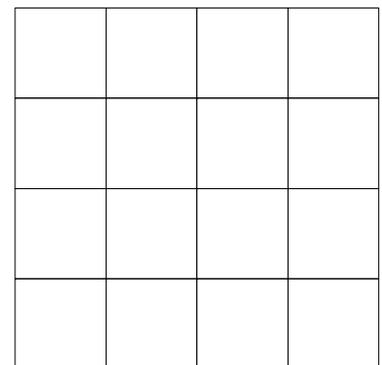
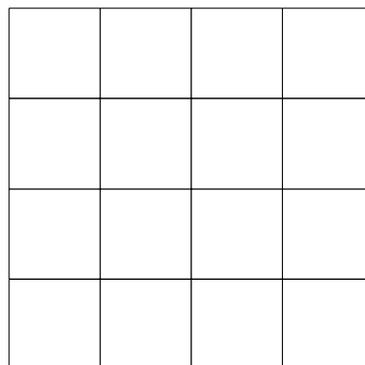
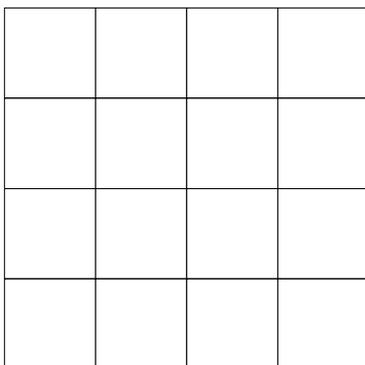
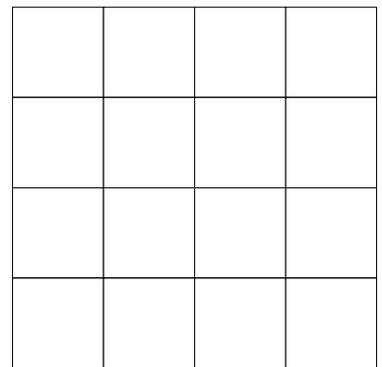
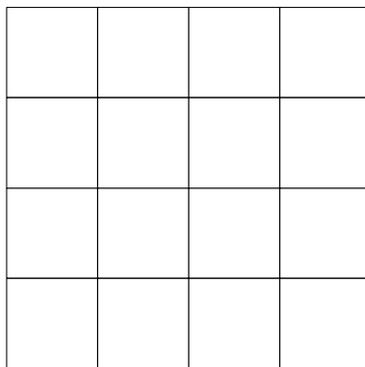
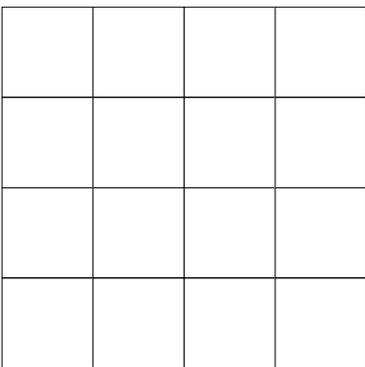
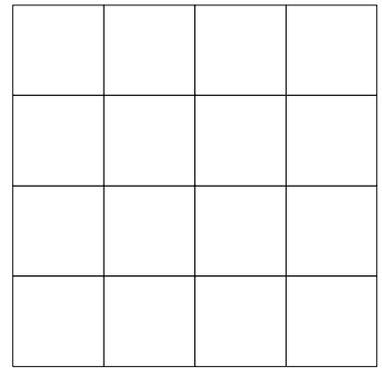
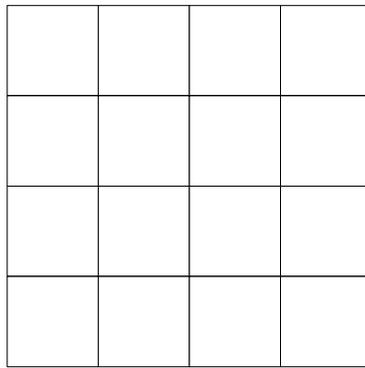
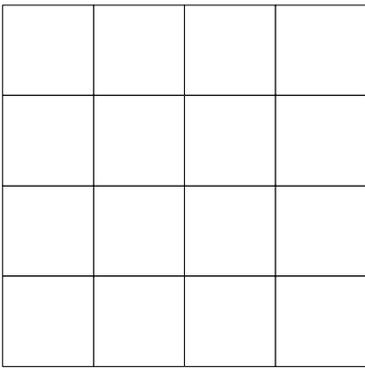


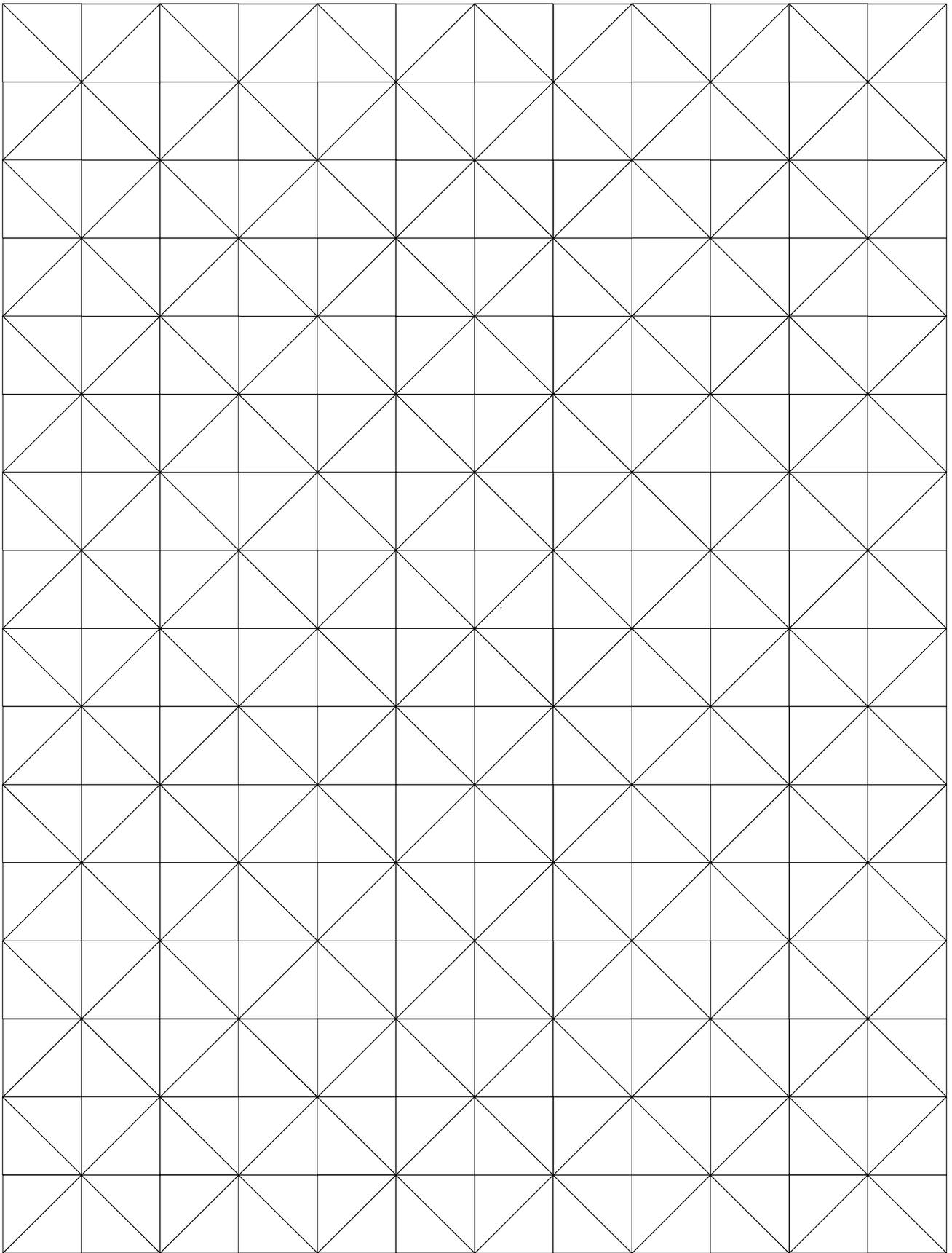
Two more grids to colour.

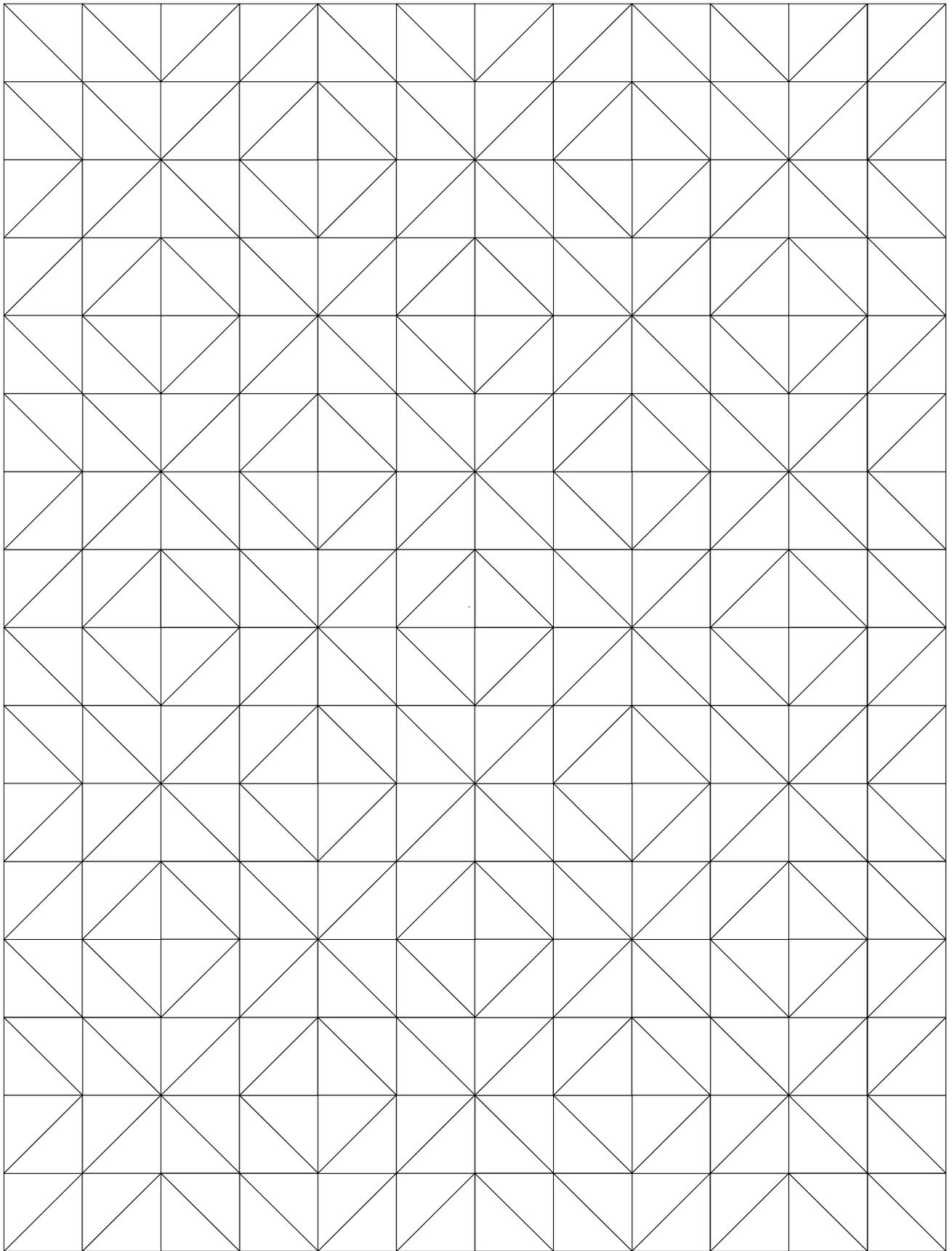


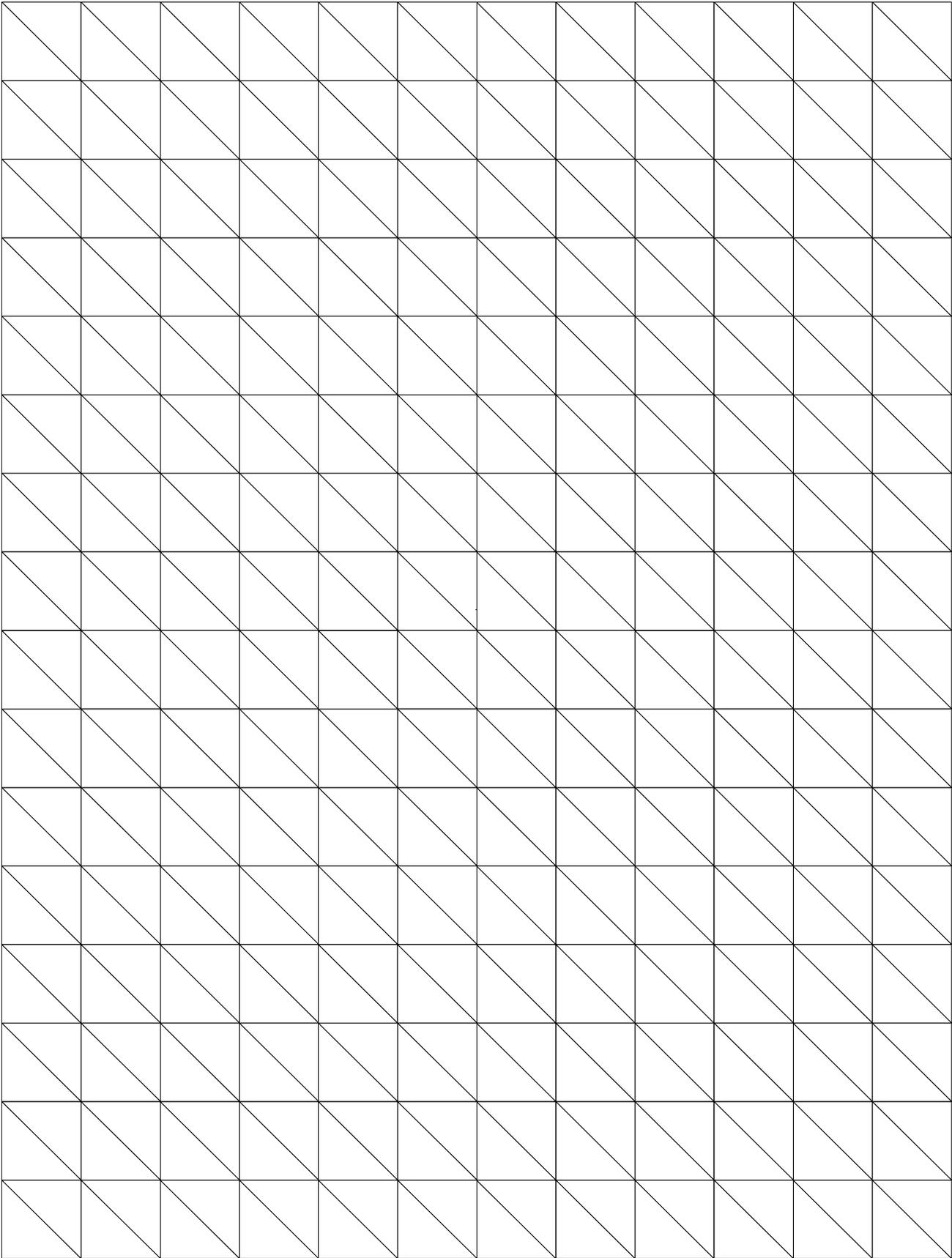


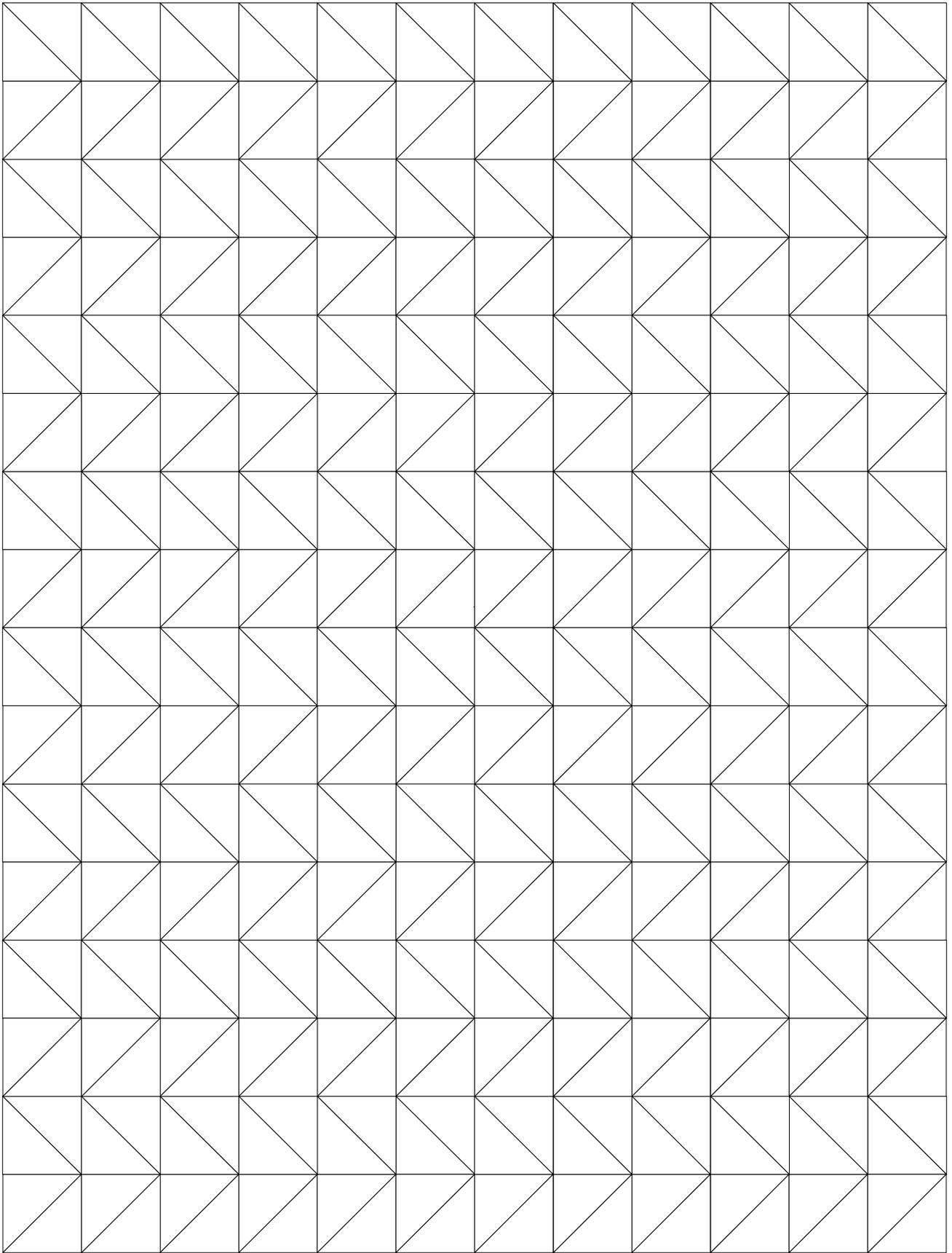
Create your own designs

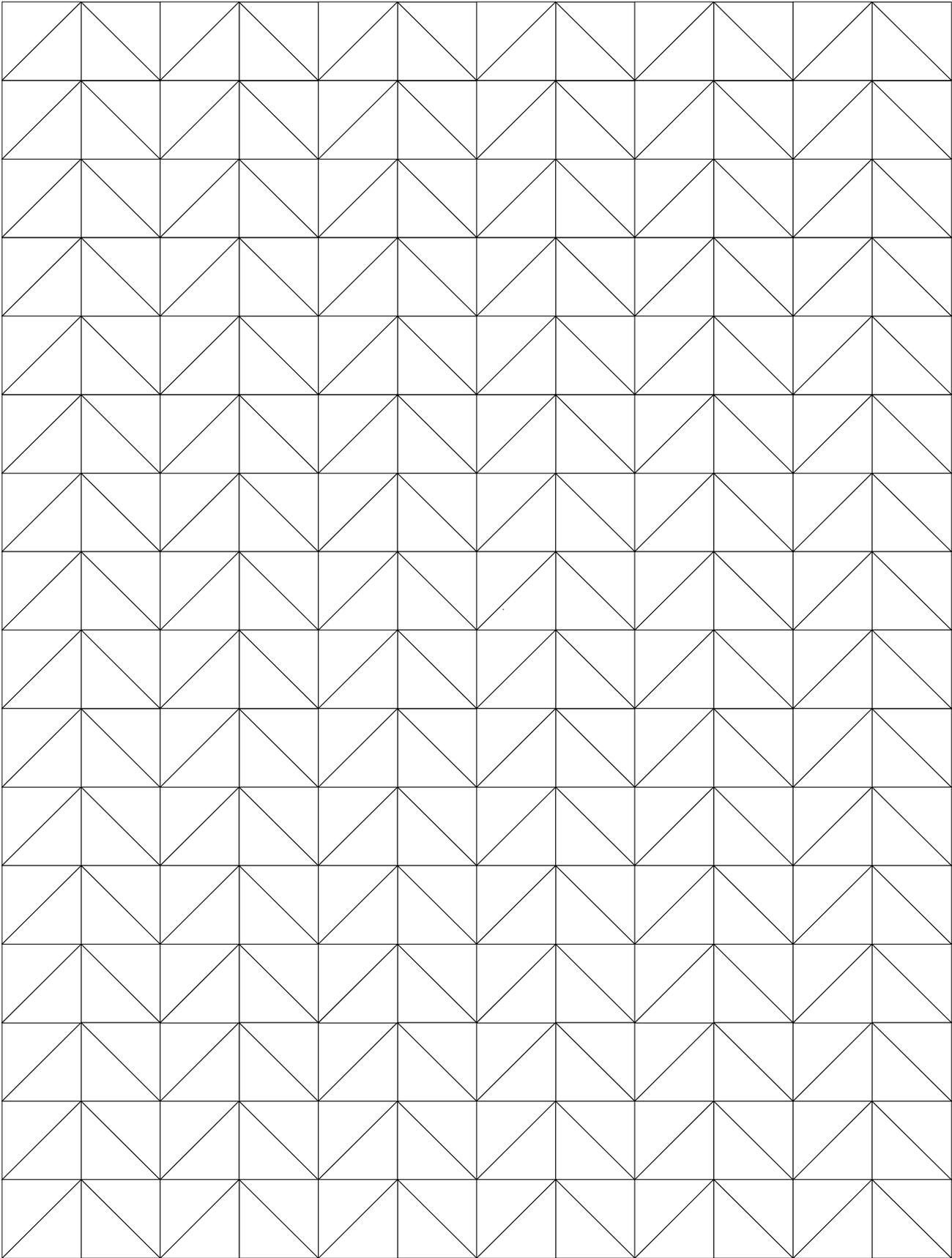


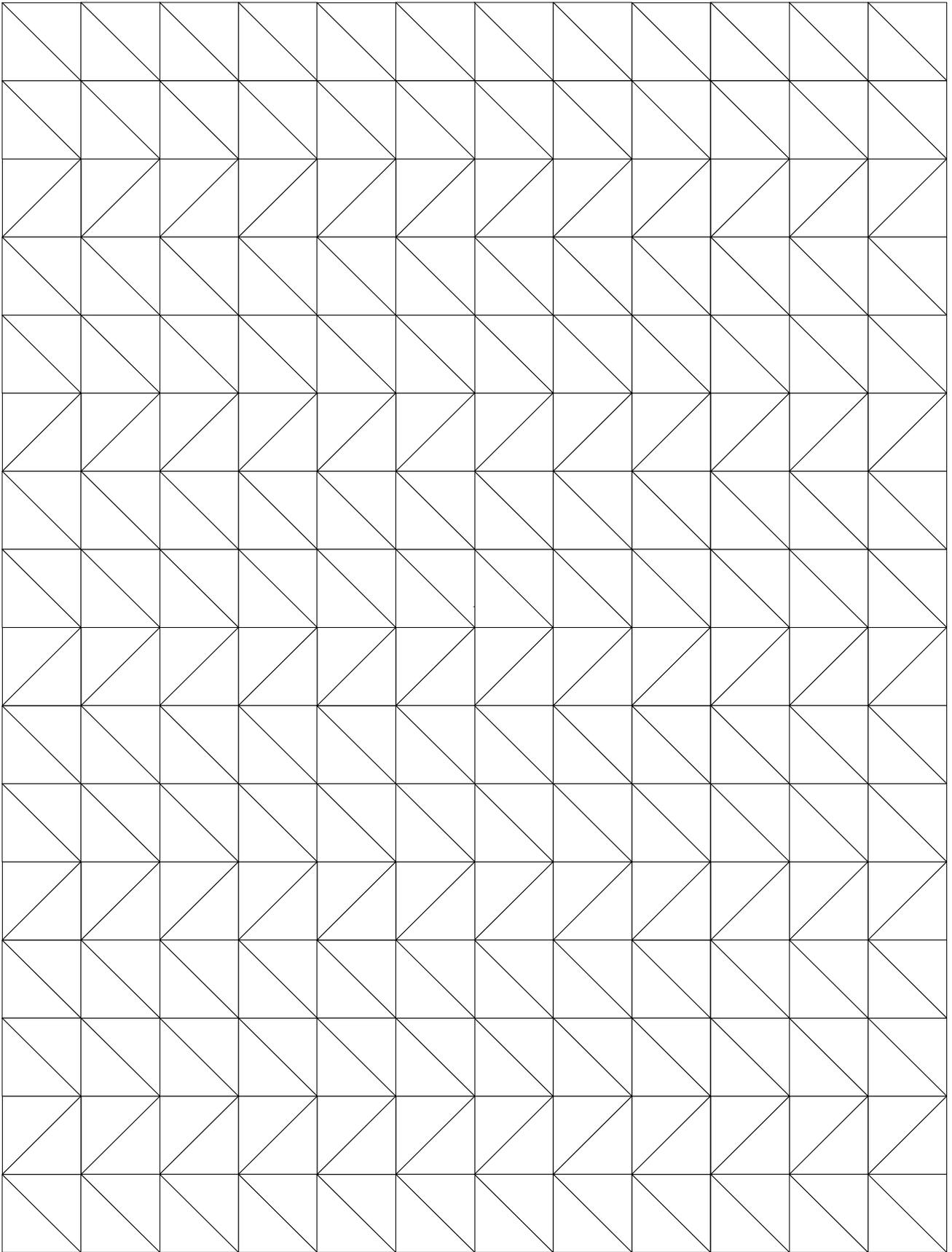


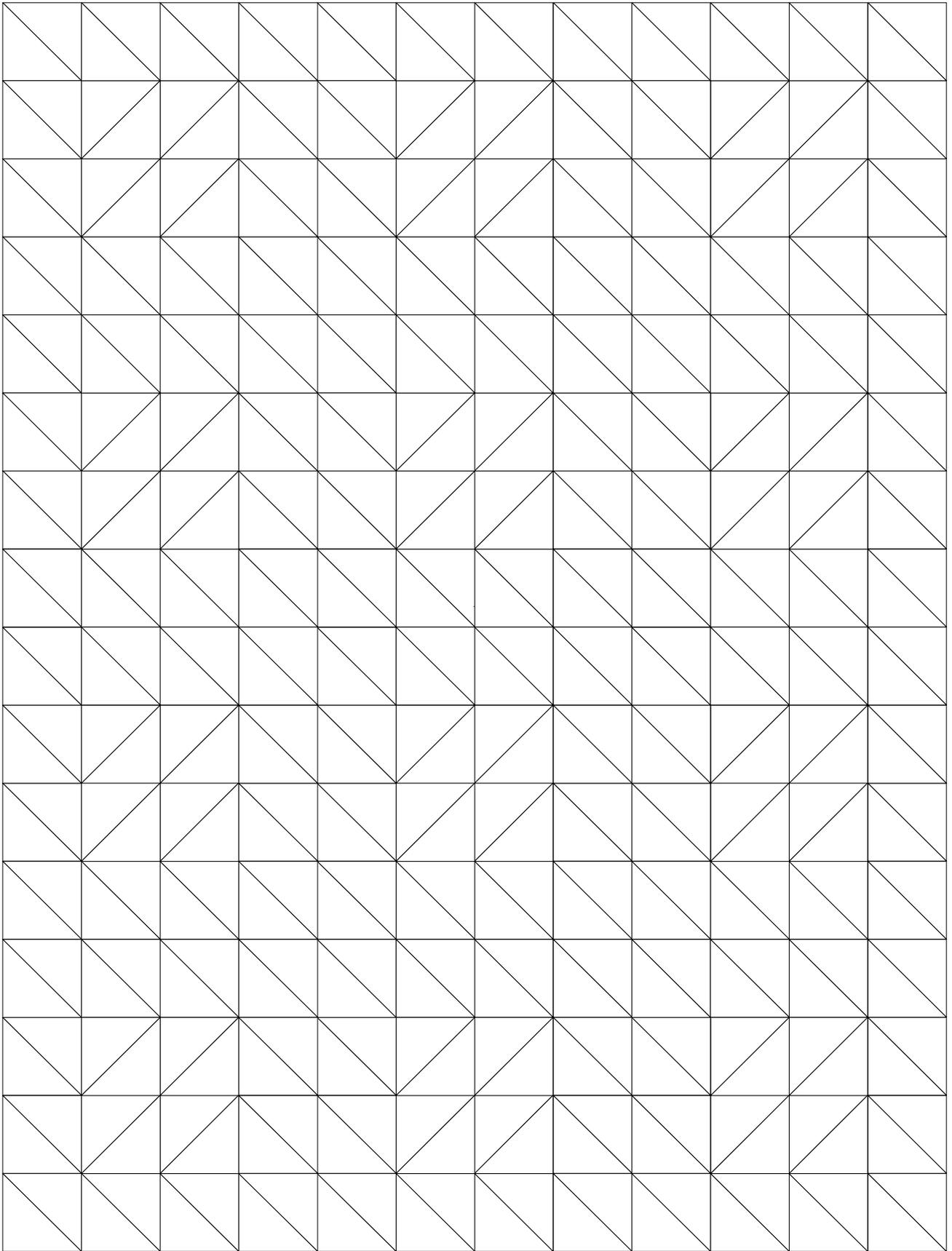


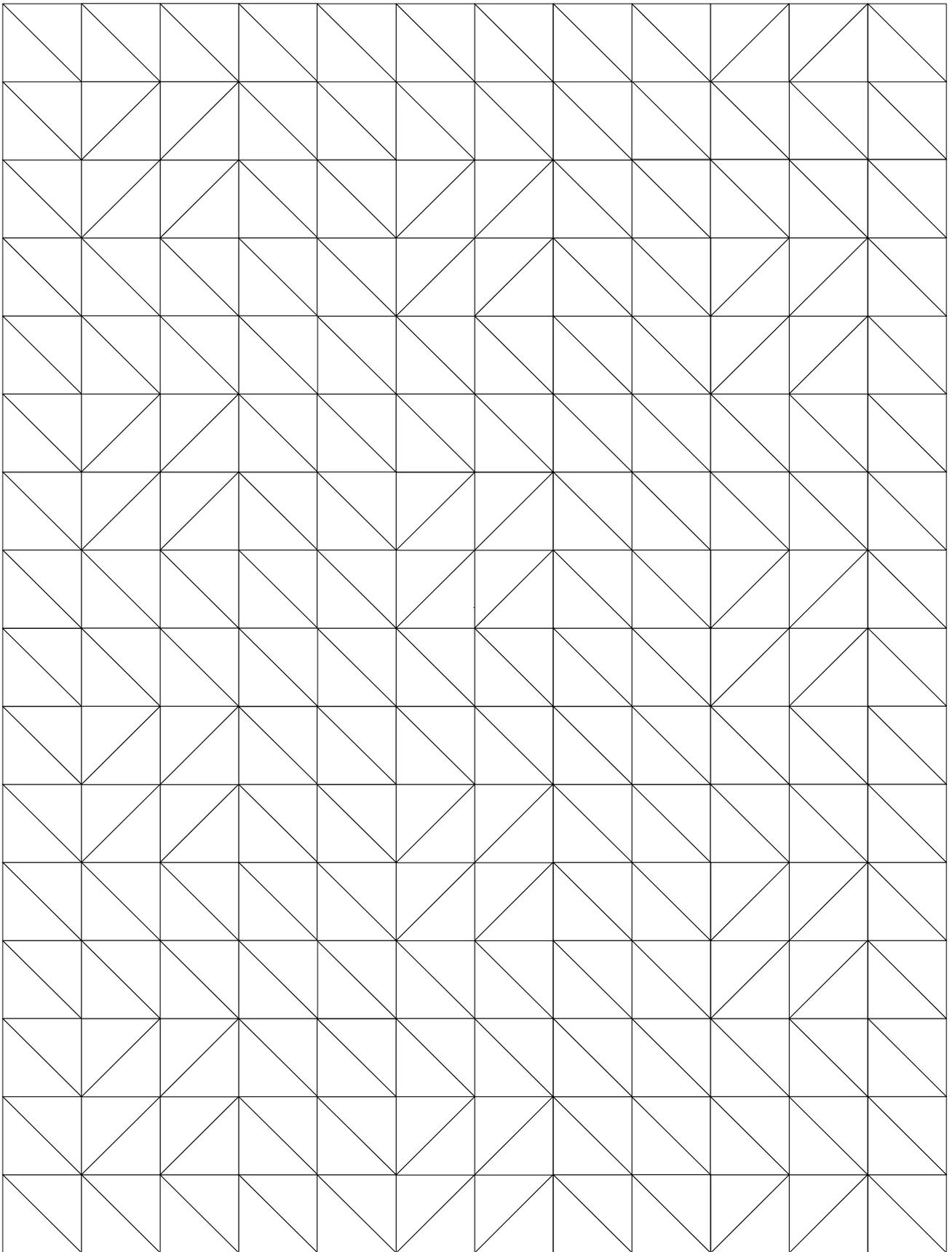


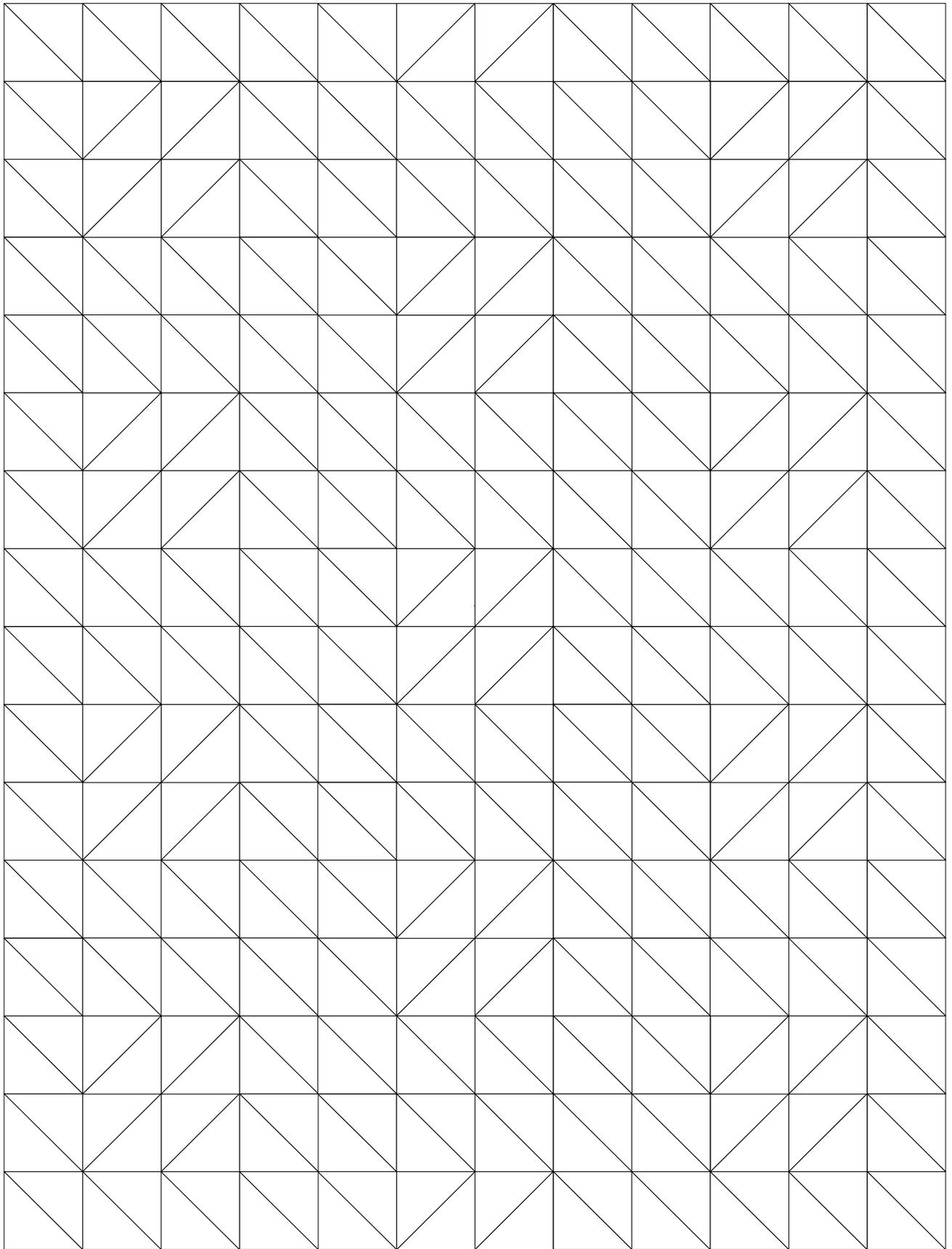


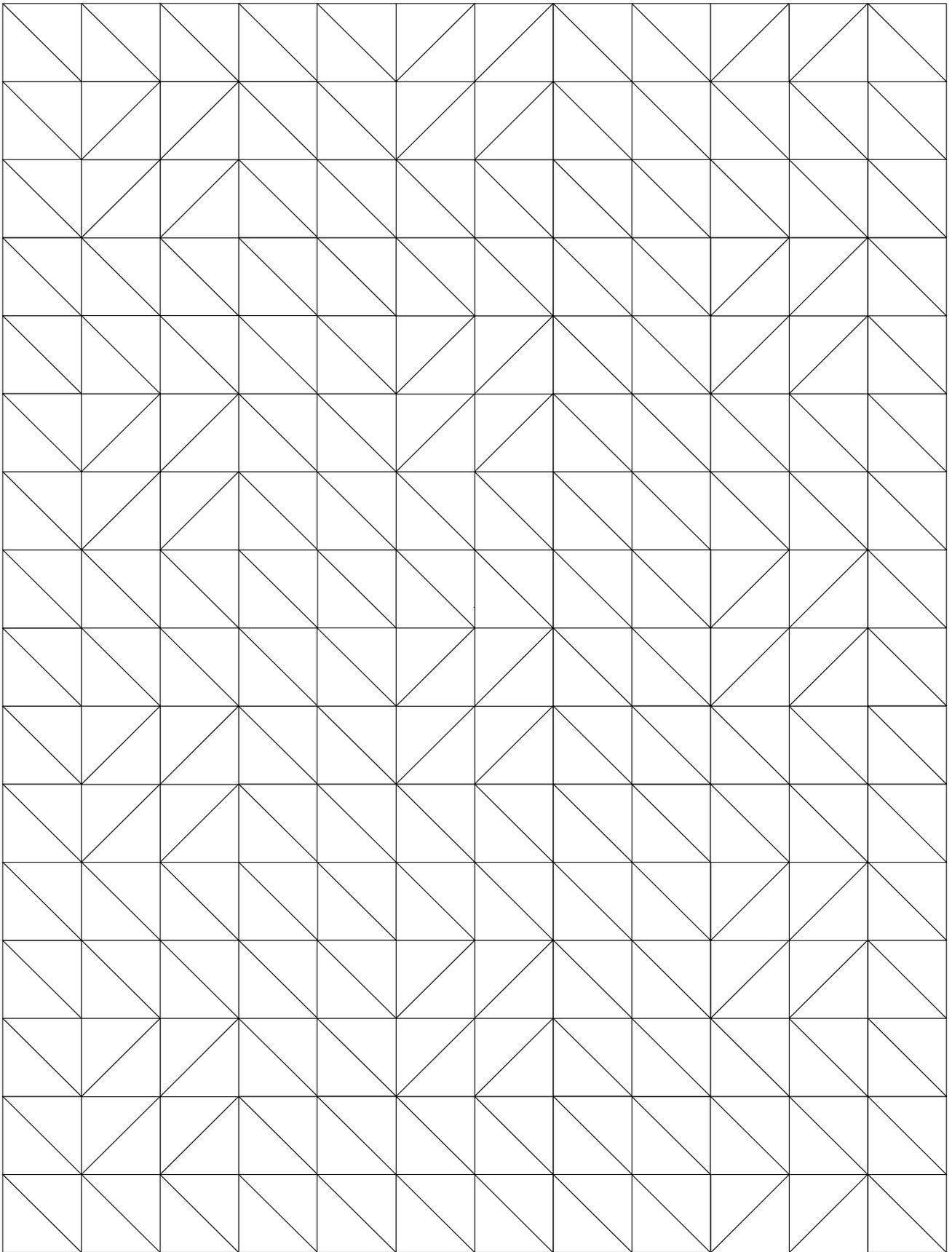












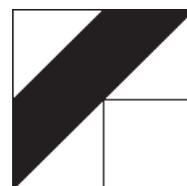
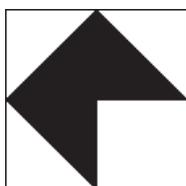
Using two squares you can make a triangle and a parallelogram.



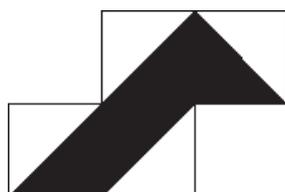
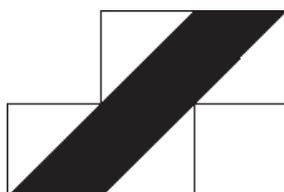
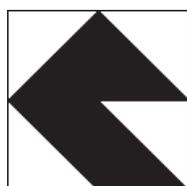
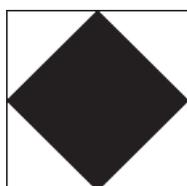
You may have found other shapes which look different but are really the same shapes turned over or turned round but are these two parallelograms the same?

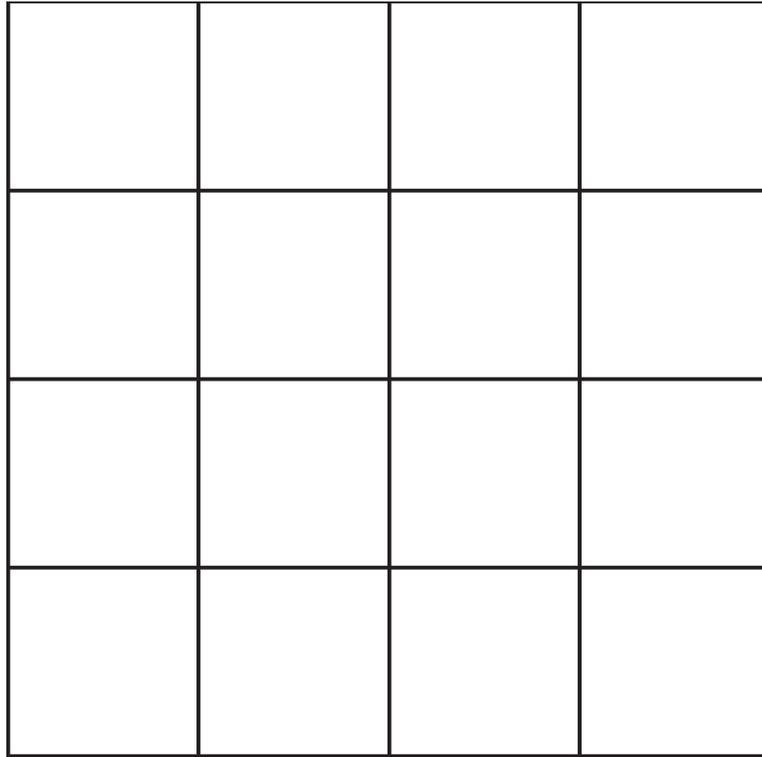


With three squares you can make these (plus some reflections and rotations).



With four squares you can make these (plus rotations and reflections).





Cut out these shapes and use them on the grid to help you.

