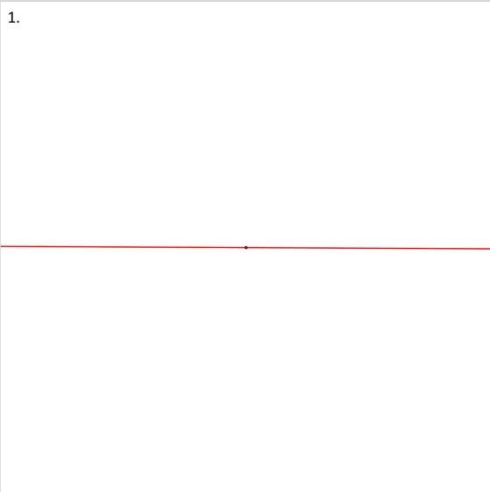
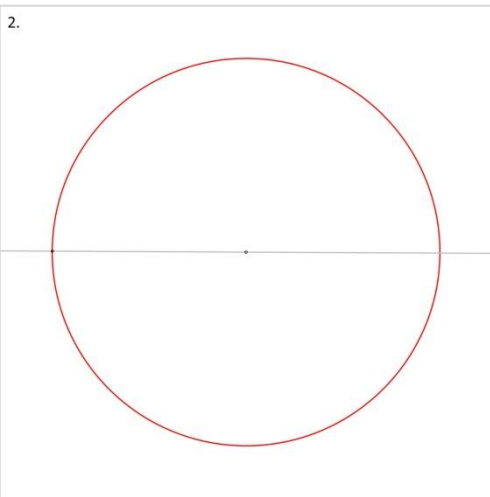


Islamic Geometric Patterns with Samira Mian

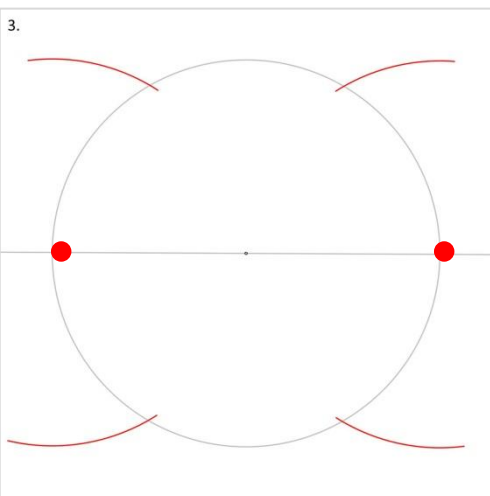
Exploring Eightfold



- Draw a horizontal line
- Mark its centre



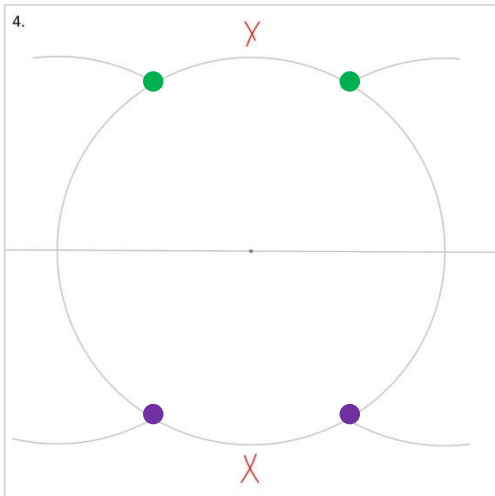
- Draw a circle
Radius = 6cm maximum. This will allow you to tile the pattern 2 by 2 on A3 paper.



KEEP THE COMPASS AT THE SET RADIUS OF THE CIRCLE

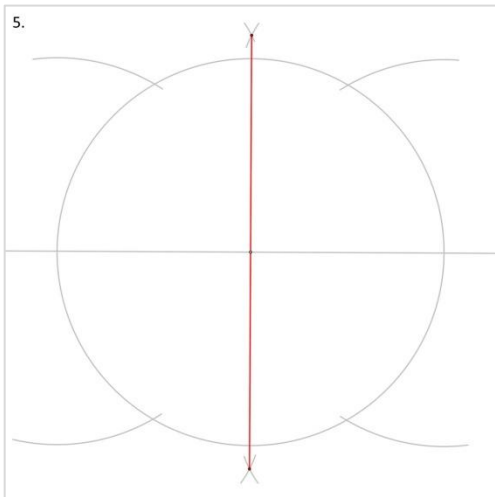
- From the two intersections (red), draw an two arc above and below, start in the circle extending into the very corners of your space on each side.

Islamic Geometric Patterns with Samira Mian Exploring Eightfold

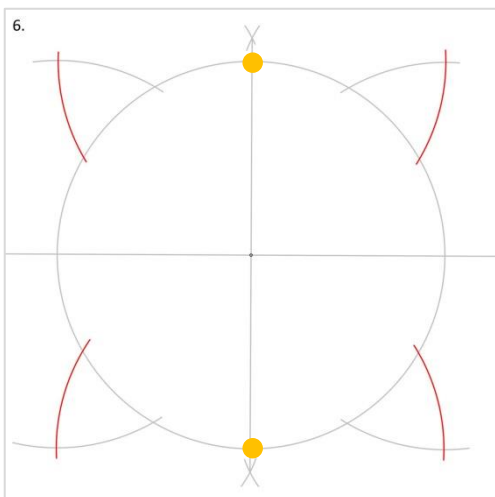


IF SPACE IS LIMITED, ADJUST THE COMPASS AS NEEDED TO JUST OVER HALF THE DISTANCE BETWEEN THE GREEN INTERSECTIONS

- At the top, use the two intersections marked (green), to create an intersection above the circle (this should be directly above the centre).
- Repeat at the bottom (purple).



- Join the two intersections through the centre to draw the vertical.

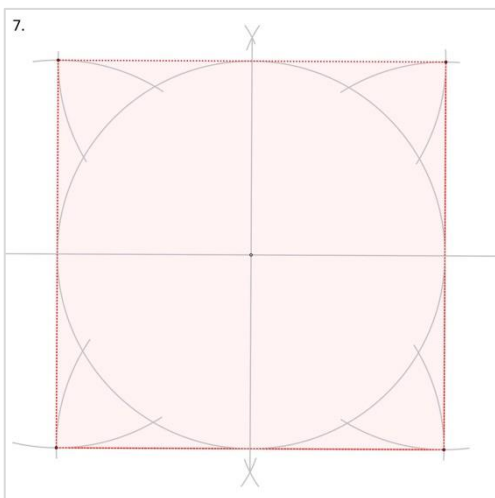


RESET THE COMPASS AT THE SET RADIUS OF THE CIRCLE.

- From the two new intersections created (yellow) on the circle, draw two arcs, left and right to complete the intersections in each corner.

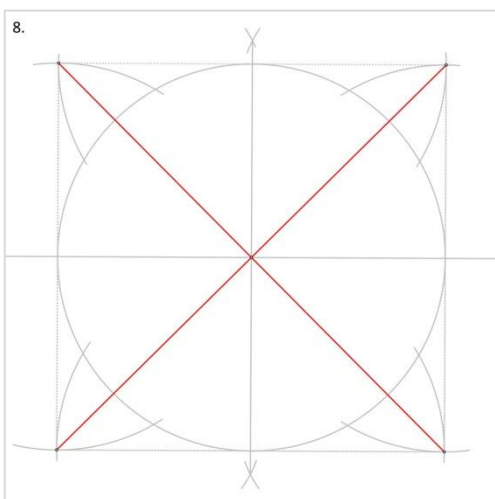
Islamic Geometric Patterns with Samira Mian

Exploring Eightfold



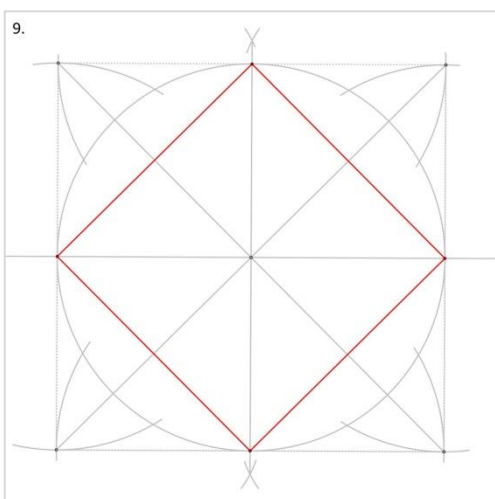
- Draw the square.

This is the repeat unit or the tile, not the lines of any pattern. By repeating whatever is in this square, we create the tiling or tessellation. It is important not to include these lines in the final pattern. By doing so we cut in half or quarter the shapes that are made when the repeat units are tiled together. This is a common mistake that many make now, but would not have been done so by the great geometers, artists & craftsmen of the past.



- Draw in the diagonals.

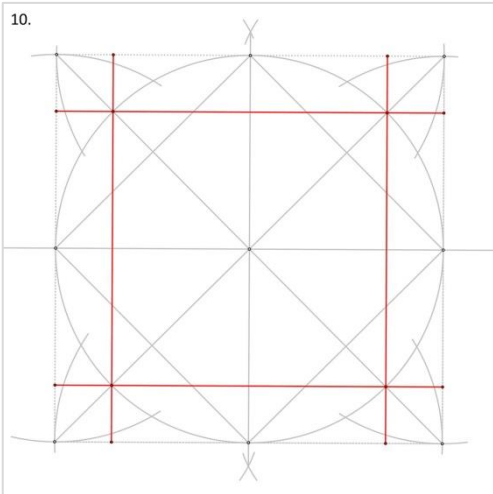
The circle is now divided into eight. For exploring simple eightfold patterns we need the circle divided in to 8. There will usually be 8 of each shape and some shapes will 8 lines of reflection symmetry or rotational symmetry order 8.



- Draw a dynamic square

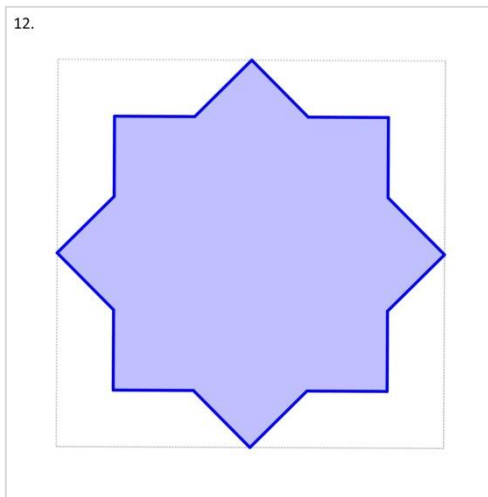
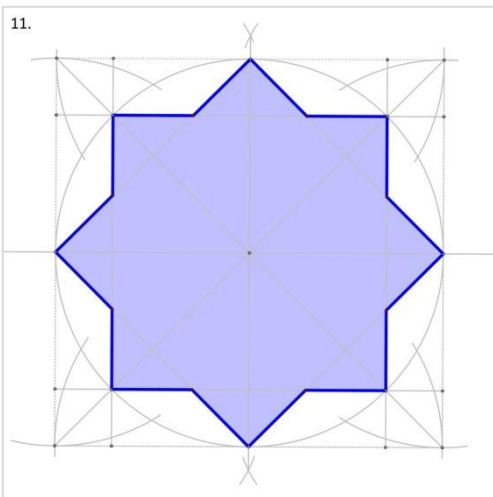
Islamic Geometric Patterns with Samira Mian

Exploring Eightfold



- Draw a static square, extend the lines to the tile's edge.

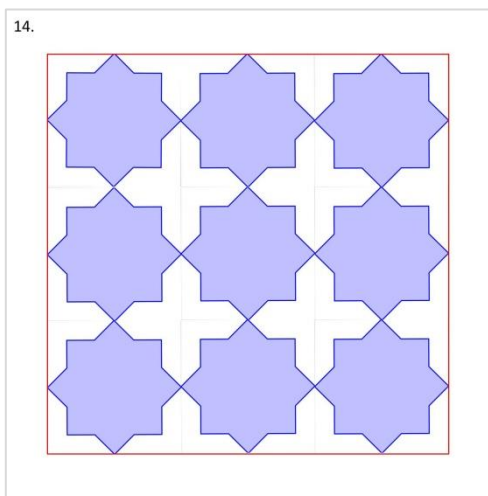
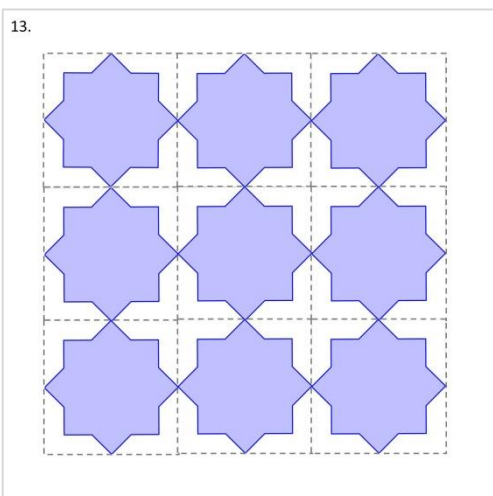
PATTERN 1 THE STAR & CROSS



The eight pointed star, sometimes called the khatam or seal of the prophet.

When tiled side to side, another shape is formed: A cross

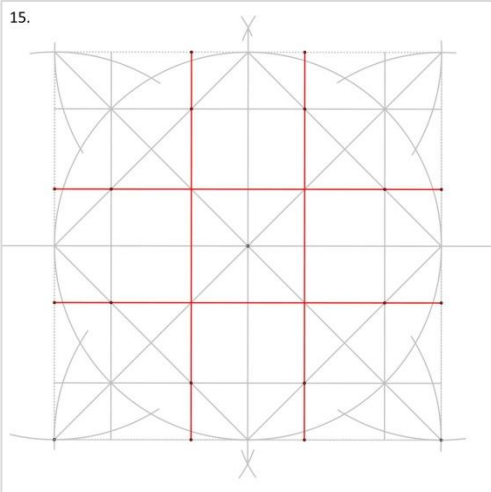
Together these have been described as the "Breathe of the Compassionate". attributed to Ibn Arabi.



Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

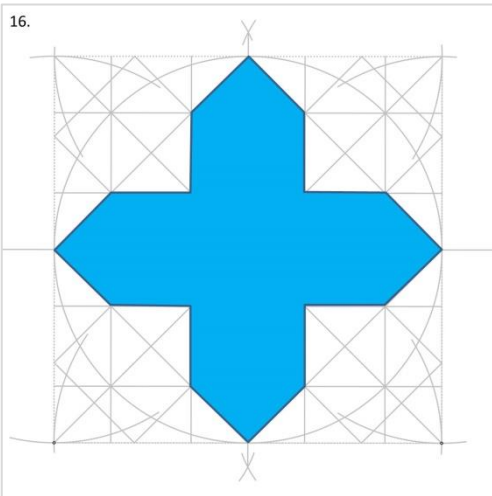
15.



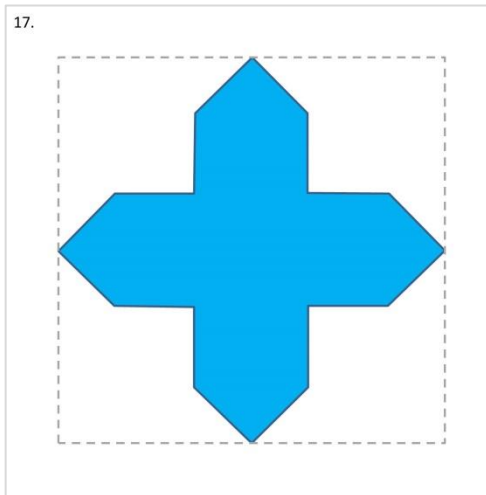
- Draw a pair of parallel lines vertically and horizontally as shown using the intersections of dynamic & static square.

PATTERN 1 (again) THE CROSS & STAR

16.

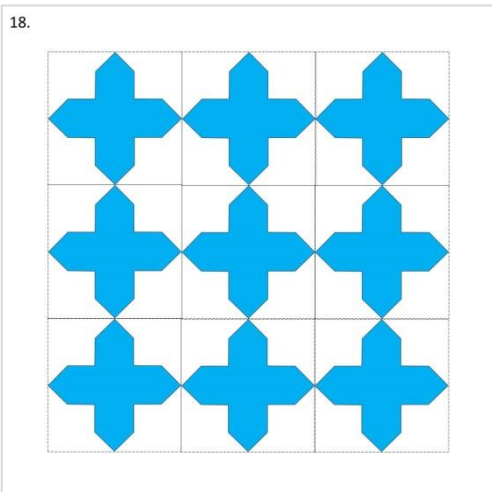


17.

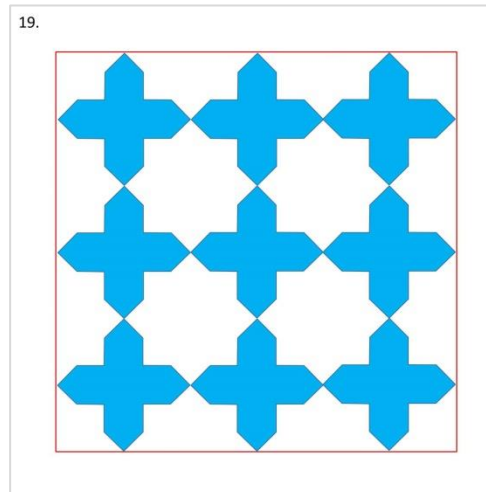


This time we draw the cross and the eight pointed star is created in the spaces in between.

18.



19.



Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

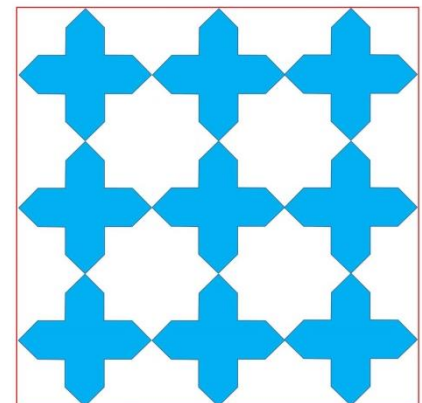
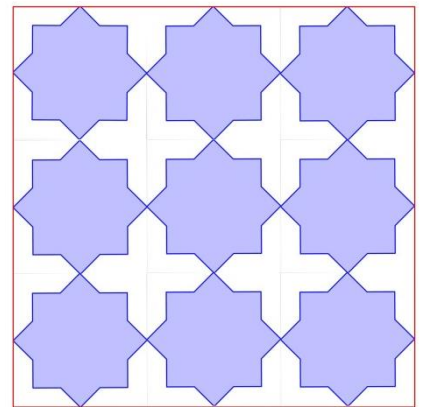
PATTERN 1 : The Cross & Star

This pattern is seen widely in the Islamic world.

Here it is tiled on a column in the **Grand Mosque of Paris**, built after the first world war 1921- 1926.

Built in the **Mujedar style**, also sometimes referred to as the **Hispanic-Moorish** which is found in Western North Africa and Spain predominantly around the **13-14th Century**. One of the features of this architecture is this tiling style, called **Zellige**, often wrongly labelled "mosaic".

It is used to decorate the surfaces of buildings and objects. This tiling concept was brought to the region by the Persians.

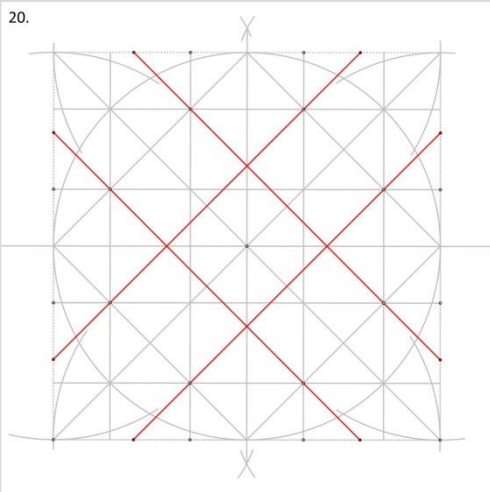


By adding further lines to the underlying grid, we can arrive at further patterns that embellish the cross and/or stars: **Patterns 2A, 2B, 2C, 2D and 2E**

Islamic Geometric Patterns with Samira Mian

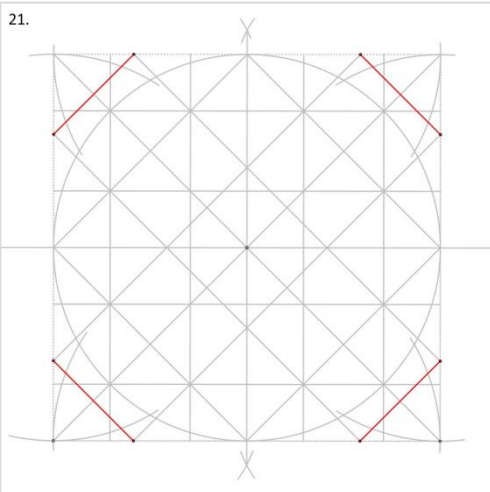
Exploring Eightfold

20.



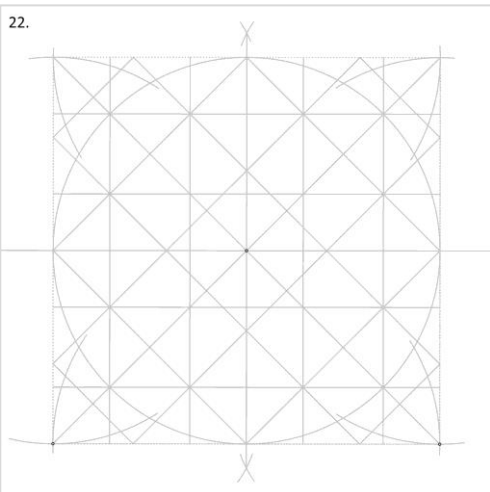
- Draw two pairs of parallel lines diagonally as shown using the intersections of dynamic & static square.

21.



- Draw a line in each corner, where the diagonal lines meet the square tile.

22.



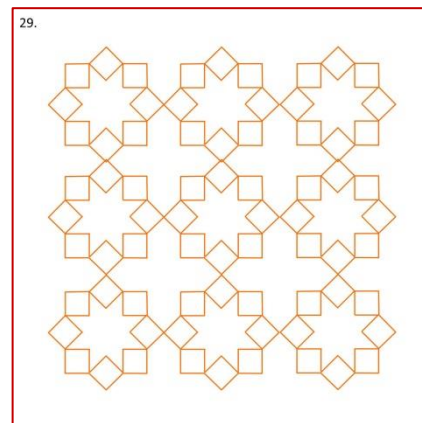
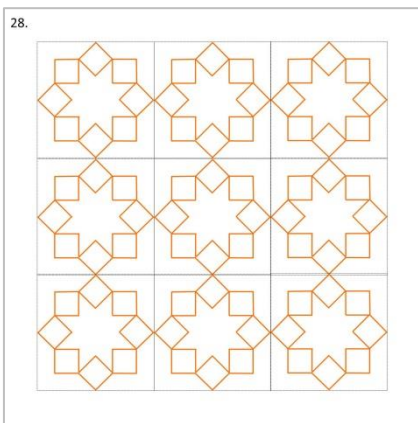
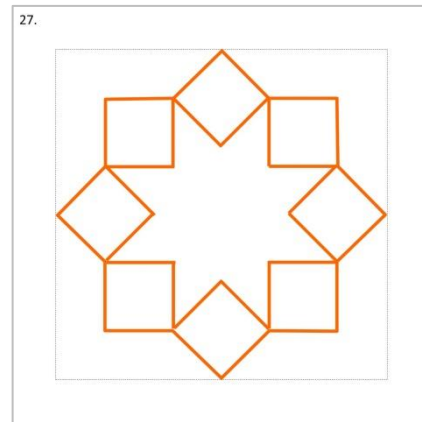
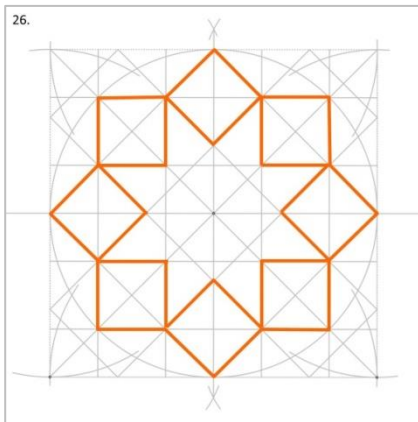
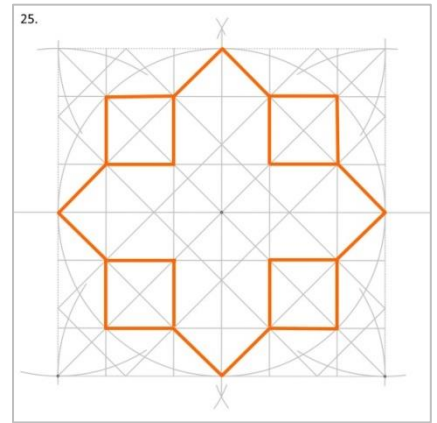
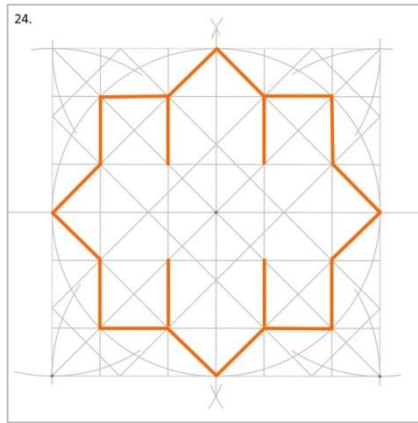
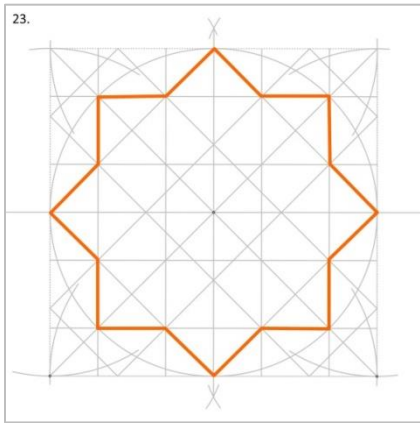
From this underlying grid, we can pick out certain lines and shapes that form patterns that embellish the star and cross pattern. They are slight variations of each other, some are more pleasing to the eye, as all the shapes are of similar size. Once colour and further decorative finishes & elements are added, they can be transformed further. The patterns that follow are just a few of the possibilities. The potential of this one underlying grid is immense.

Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

PATTERN 2A.

By breaking down the space inside the eight pointed star we can find squares and a larger different eight pointed star.

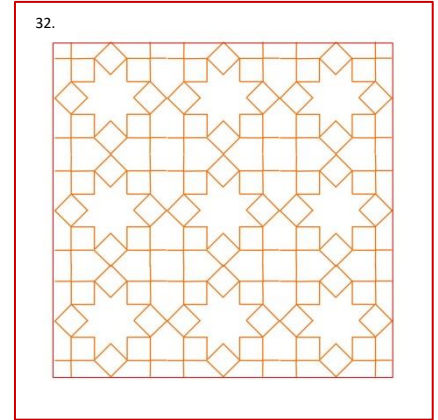
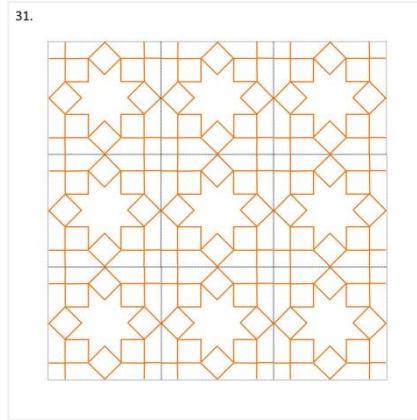
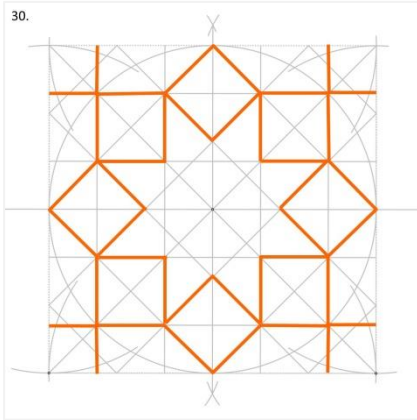


Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

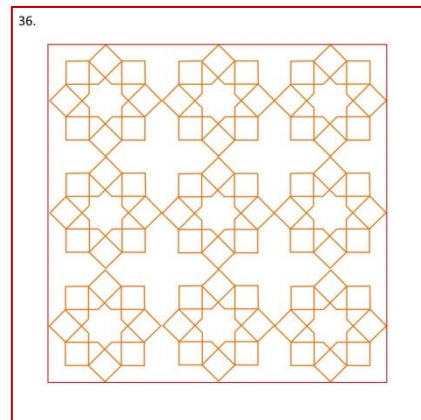
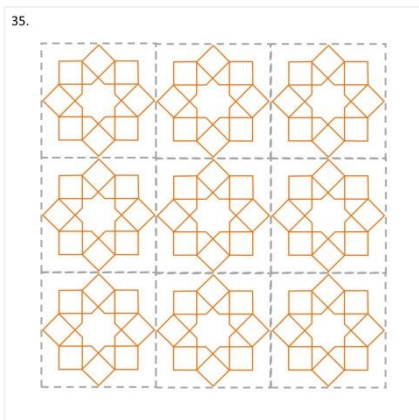
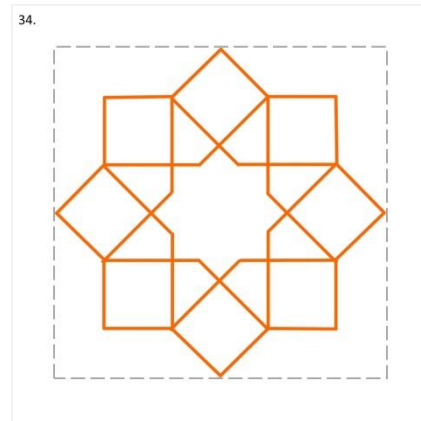
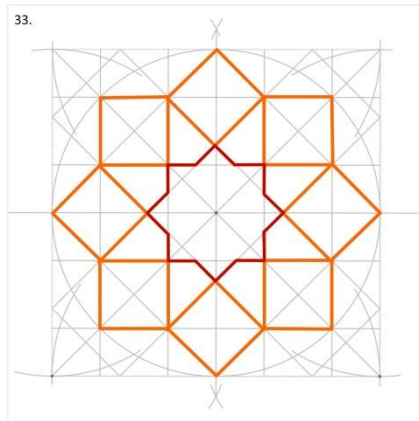
PATTERN 2B

In the corners we can extend the lines from the central star to create a square at the centre of each cross.



PATTERN 2C

We can draw a smaller eight pointed star at the centre of the star, so that the pattern is made up of a eight pointed star, kites and squares. The crosses remain untouched.

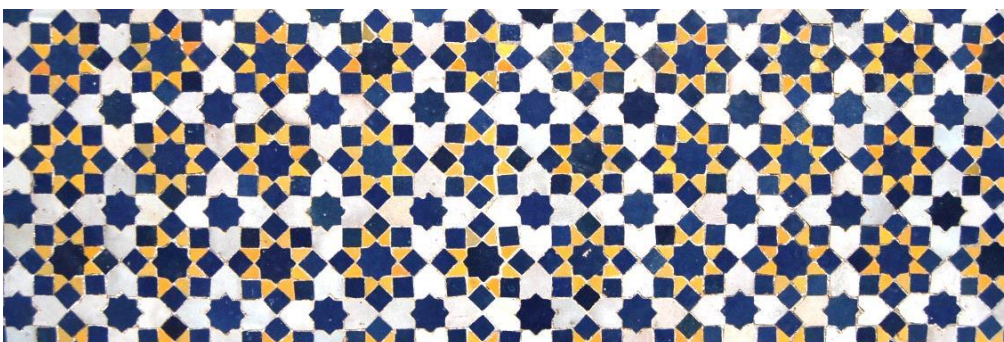
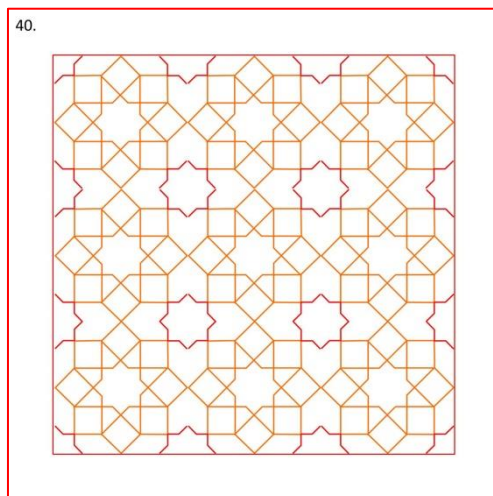
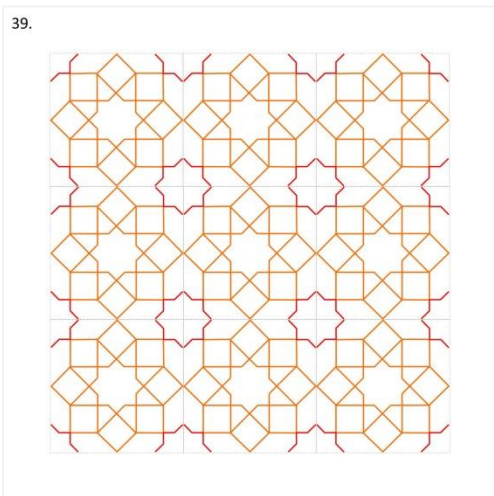
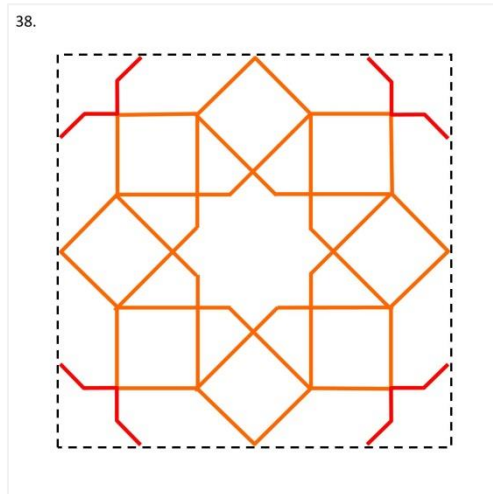
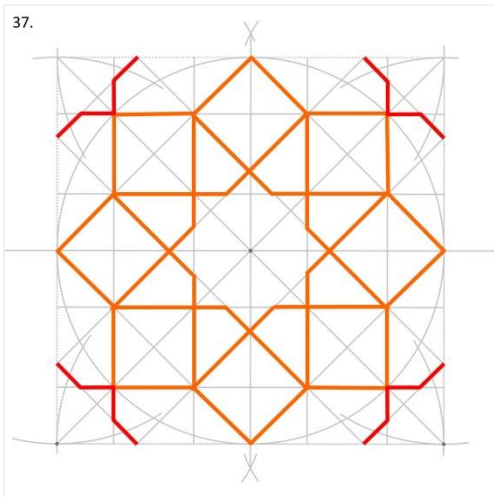


Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

PATTERN 2D

We can draw quarter eight pointed stars in the corners, so that we can arrive at a more balanced pattern, where all the shapes are similar sized shapes throughout.



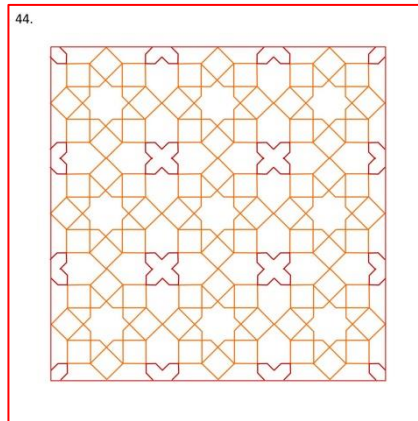
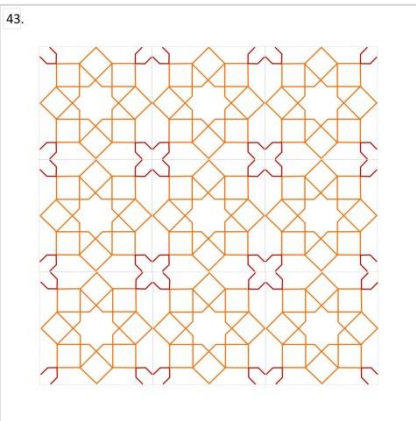
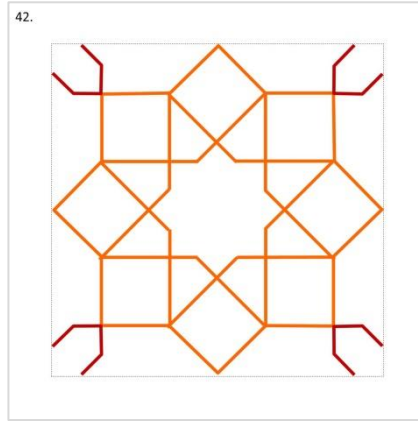
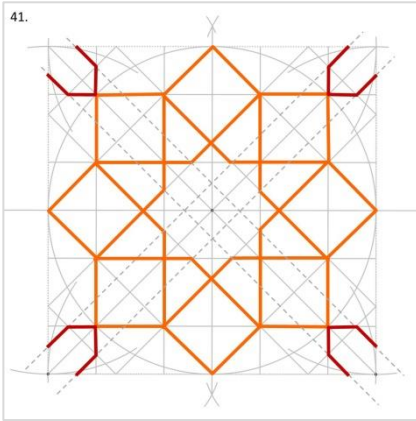
This pattern is a typical **Zellige** pattern this photo is from Fes, Morocco.

Islamic Geometric Patterns with Samira Mian

Exploring Eightfold

PATTERN 2E

Finally, we can embellish the centre of the cross with a smaller cross! This does require extended lines we haven't yet drawn, shown in step 41 below.



To draw the pattern 4 times in a 2 by 2 arrangement draw steps 1 to 9 and then the following 3 steps, once completed you will draw the steps for the pattern of your choice, 4 times in each square.

