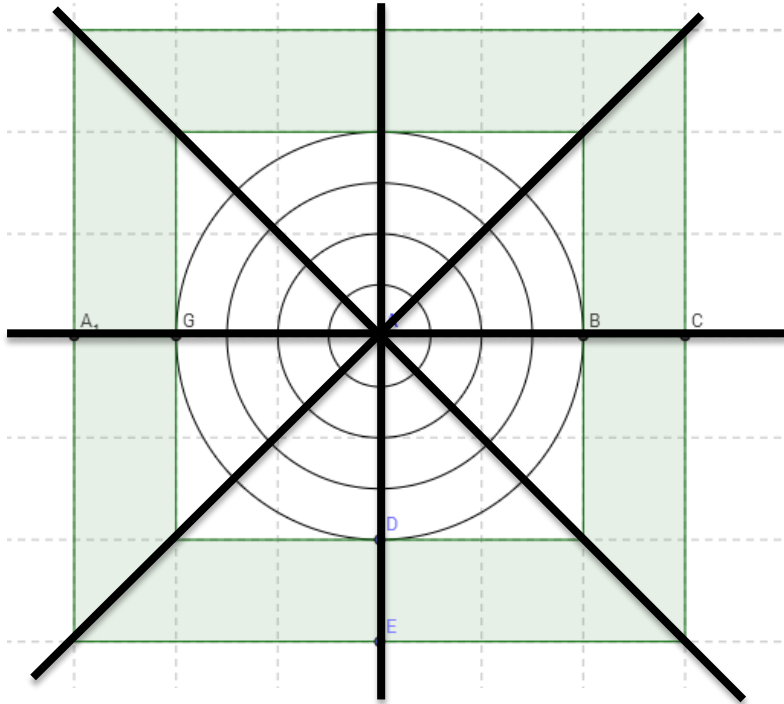


I have been asked to design a new garden to go where the old tennis court was in front of the school office.

This is the basic shape of the garden. There will be a tree at A surrounded by an empty circle. The bit between the next two circles will be a green hedge, then a blank, then another green hedge. The L shape pieces will be a green hedge.



To make this garden

Mark point in the middle

Draw a circle radius one unit with this point as centre (A)

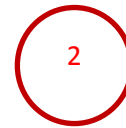
Enlarge this circle centre A by a factor of 2, then 3 and then 4 to get the other circles, all centre A.

Draw the bottom right L shape.

Reflect it in BC to get the top right L

Rotate this second L 180° about A to get the bottom left L

Reflect this third L in A,G to get the last L shape.



Symmetry

This garden has four mirror lines: horizontal, vertical and the two diagonals. I have drawn them on the diagram in black. This garden also has four rotation symmetries about the centre of the garden.



Adding on

The finished garden will have four of these designs. To get this translate the basic shape 14 units to the right and then reflect these about a horizontal line you get 4 in a nice square.

This will have a horizontal and a vertical mirror line.