

How To Draw A Trefoil

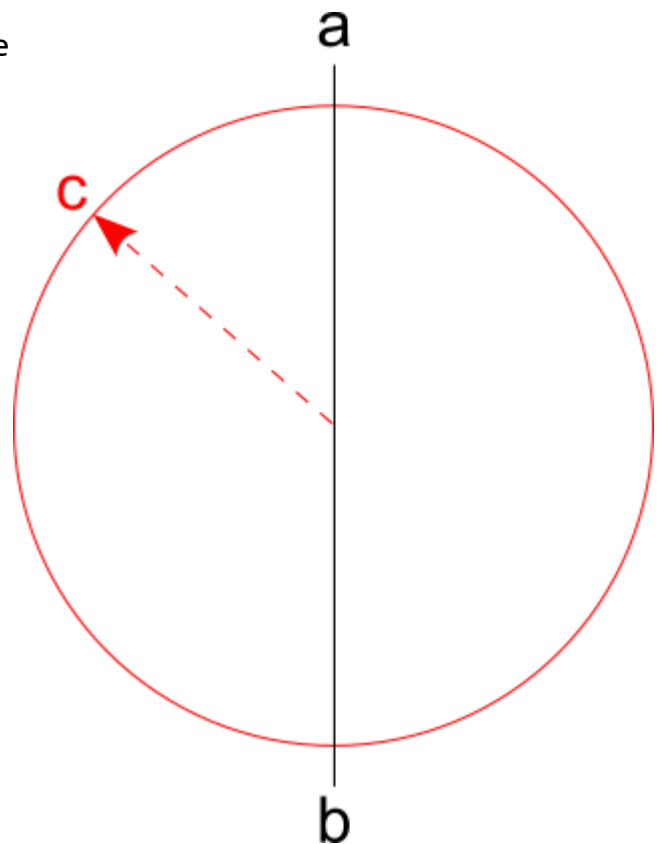
A trefoil is a common motif found in gothic architect. In it's most basic form it consists of three circular elements in the shape of a triangle. This how to describes the construction of a trefoil inside a circle, and is useful when setting out tracery with defined constraints.

Method Of Construction

- Draw a centre line and circle
- Mark the points for the equilateral triangle
- Draw an equilateral triangle
- Find the centre points for lower lobes
- Draw the circles of the trefoil

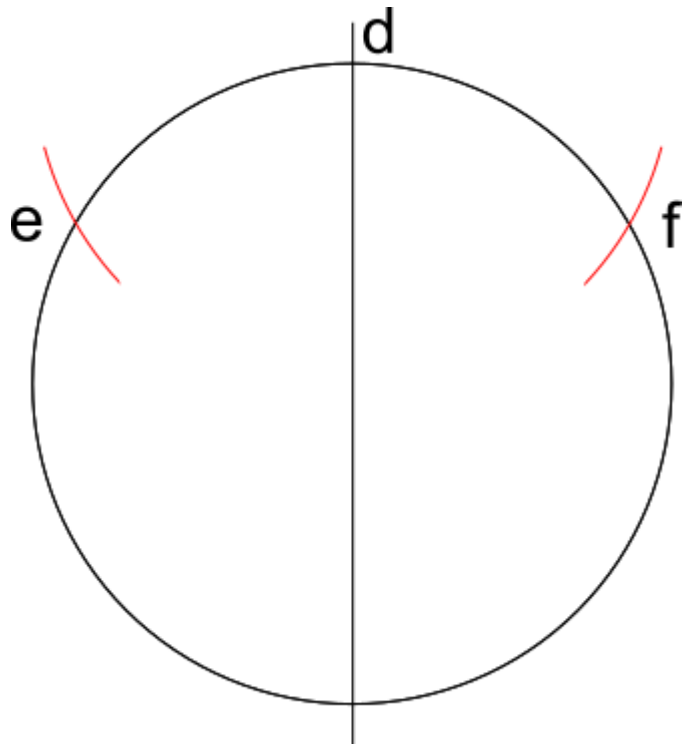
Draw A Centre Line And Circle

Draw a vertical centre line $a-b$, and on that line draw a circle with a radius c that you wish to fit the trefoil inside.



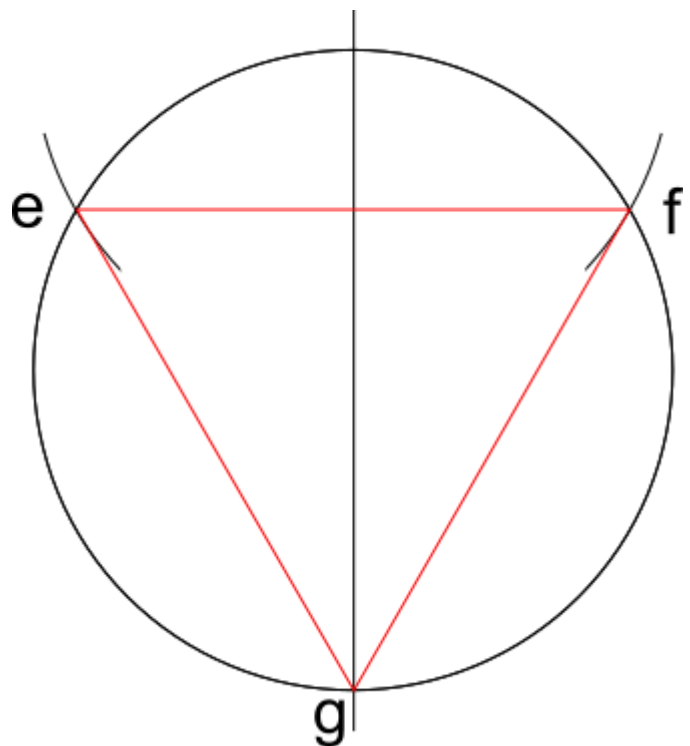
Mark Points For Equilateral Triangle

Without adjusting the compass, place its point at d where the previously drawn circle intersects line $a-b$. Draw two arcs e and f at the intersection points with the original circle.



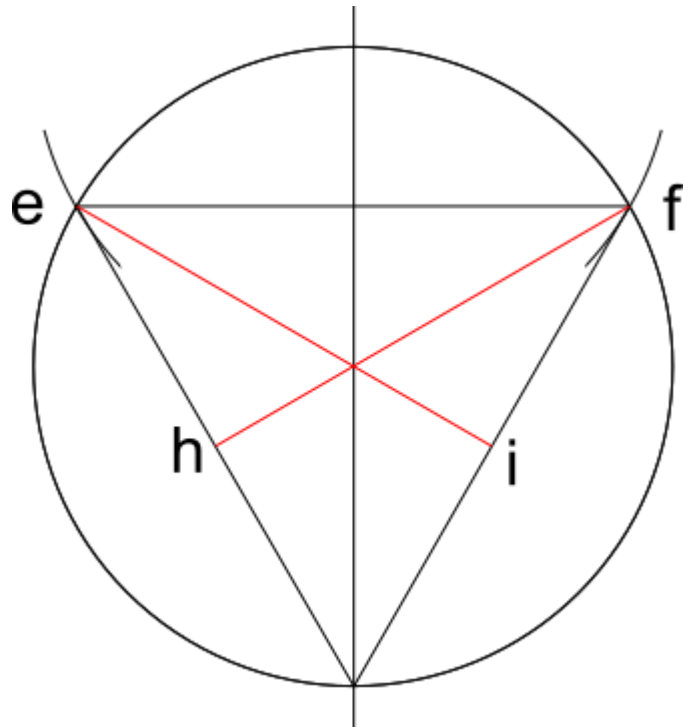
Draw An Equilateral Triangle

Draw an equilateral triangle from points e , f , and point g . Point g is at the intersection of vertical line $a-b$ and the original circle.



Find The Centre Points For The Lower Lobes

Using point *e* and the centre point of the original circle, construct line *e-i*.
Using point *f* and the centre point of the original circle, construct line *f-h*.
Points *h* and *i* are the centre points of the lower lobes.



Draw The Circles Of The Trefoil

Place the point of the compass at point *h* and adjust the radius so that it touches the centre point of the original circle. Draw three circles at points *h*, *i*, and *j* with this radius. The resultant three circles describe a trefoil drawn in a circle with a given radius.

