

Bisecting An Angle Continuously

Bisecting a 90° angle continuously

First draw a line segment EF of a line L. Release your compasses at an appropriate separation and using E as Centre, construct an arc or curve to intersect or crisscross the line L at M and N. Release your compasses to a bigger separation and with centre M, construct an arc or curve over the line L. We use this same compasses separation all through. With N as Centre construct a second arc or curve to intersect or crisscross the first arc at O, and the line L at W. At this time draw a straight line passing through the point E and O. Hence angle FEO= 90°

With T as Centre, construct an arc or curve to intersect or crisscross the arc OW at G. Draw a straight line passing through the points E and G. Hence angle FEG = 45° .

With S as Centre, construct an arc or curve to intersect or crisscross the arc OW at H. Draw a straight line passing through the points E and H. Hence angle FEH = 22.5° .

With U as Centre, construct an arc or curve to intersect or crisscross the arc OW at I. Draw a straight line passing through the points E and I. Hence angle FEI= 11.25° .

