Bisecting an Angle

The bisector of an angle divides the angle into two halves

Bisect angle PQR of size 60°

Construction

Release your compasses to an appropriate separation and with Q as centre, build an arc or curve to intersect or crisscross the arms QP and QR at X and Y in that order. Then using X and Y as centres, build two arcs to intersect or crisscross above XY at T. At this instant draw a straight line passing through the points Q and T. QT is the bisector of the angle PQR. By extent, PQT=RQT=30°