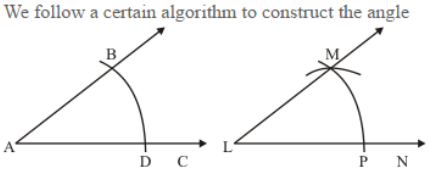
Constructions Ex 17.2 Q1

Answer :

We are asked to draw an angle BAC and construct another angle equal to angle BAC
We follow a certain algorithm to construct the angle

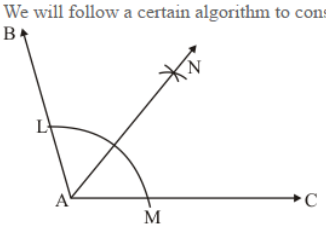


Steps of Construction
STEP1: Draw an angle of any measure, and label it as ∠BAC. We have to construct another angle equal to this angle.
STEP2: Draw a ray LN.
STEP3: With centre A and radius equal to AB, draw an arc cutting the ray AC at point D.
STEP4: With centre L and taking the same radius as AB, draw an arc cutting the ray LN at point P.
STEP5: With centre P, and radius equal to BD, draw an arc intersecting the arc drawn in step 4, at point M.
STEP6: Draw ray LM.
$\angle MLN = \angle BAC$

Constructions Ex 17.2 Q2

Answer :

We are asked to construct an angle and bisect it and measure each angle
We will follow a certain algorithm to construct



Steps of construction
STEP1: Draw an obtuse angle of any measure. For example take 100 degrees. And label it as ∠BAC.
STEP2: With centre as A, and radius of any measure, draw an arc intersecting the ray AB and AC, at L and M respectively.
STEP3: With centre M and radius greater than half of LM, draw an arc inside the cone.
STEP4: With centre L and taking the same radius as in STEP 3, draw another arc intersecting the previous one at N.
STEP5: Draw the ray AN. This is the angle bisector of ∠BAC.
After measurement, we can find out that, ∠BAN=∠NAC=50°.

********** END **********