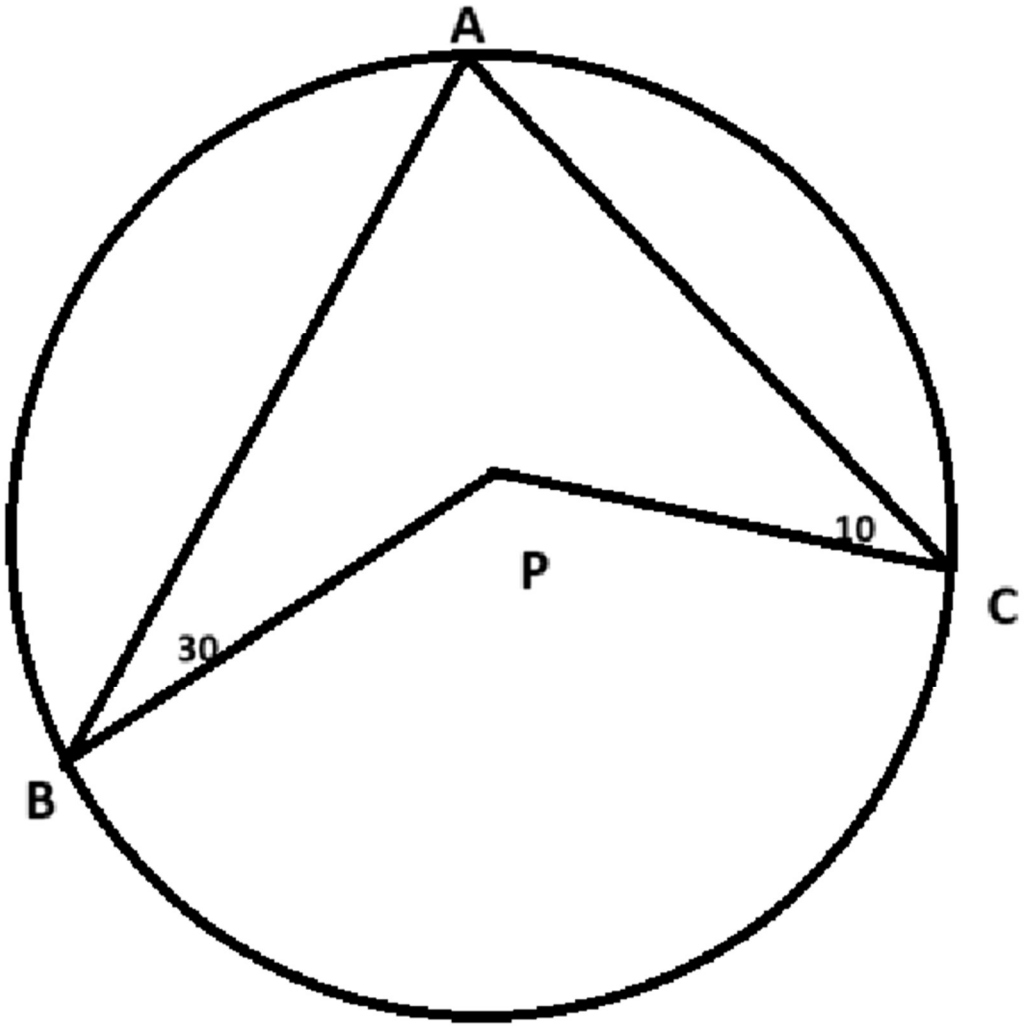
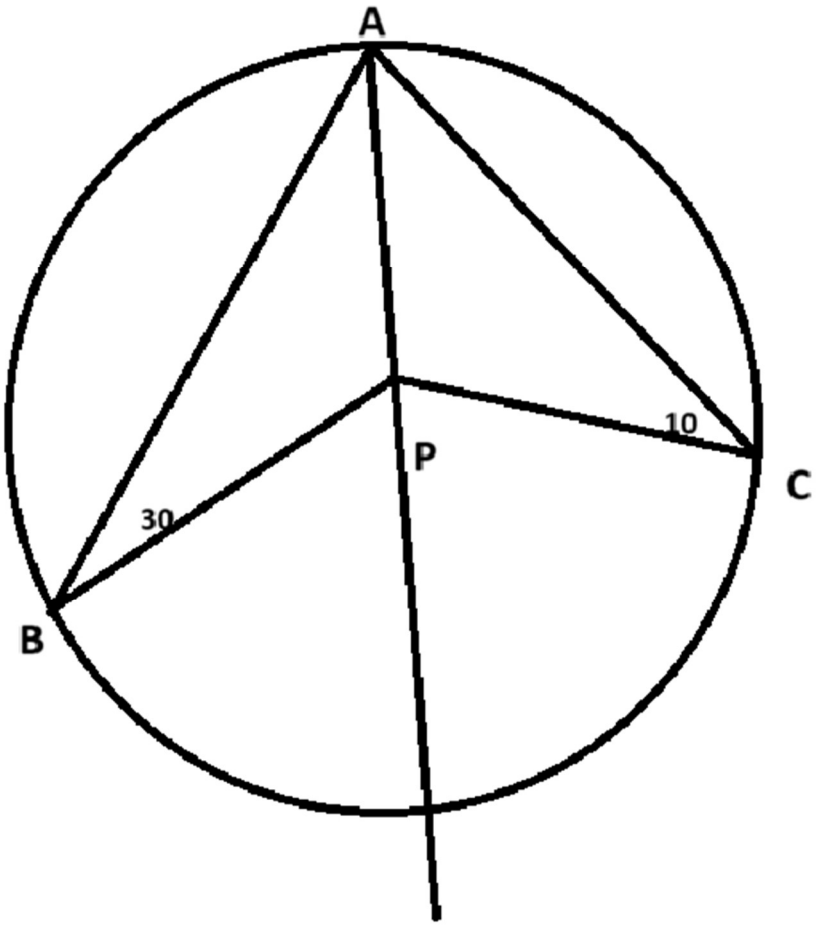


In this figure, find angle P

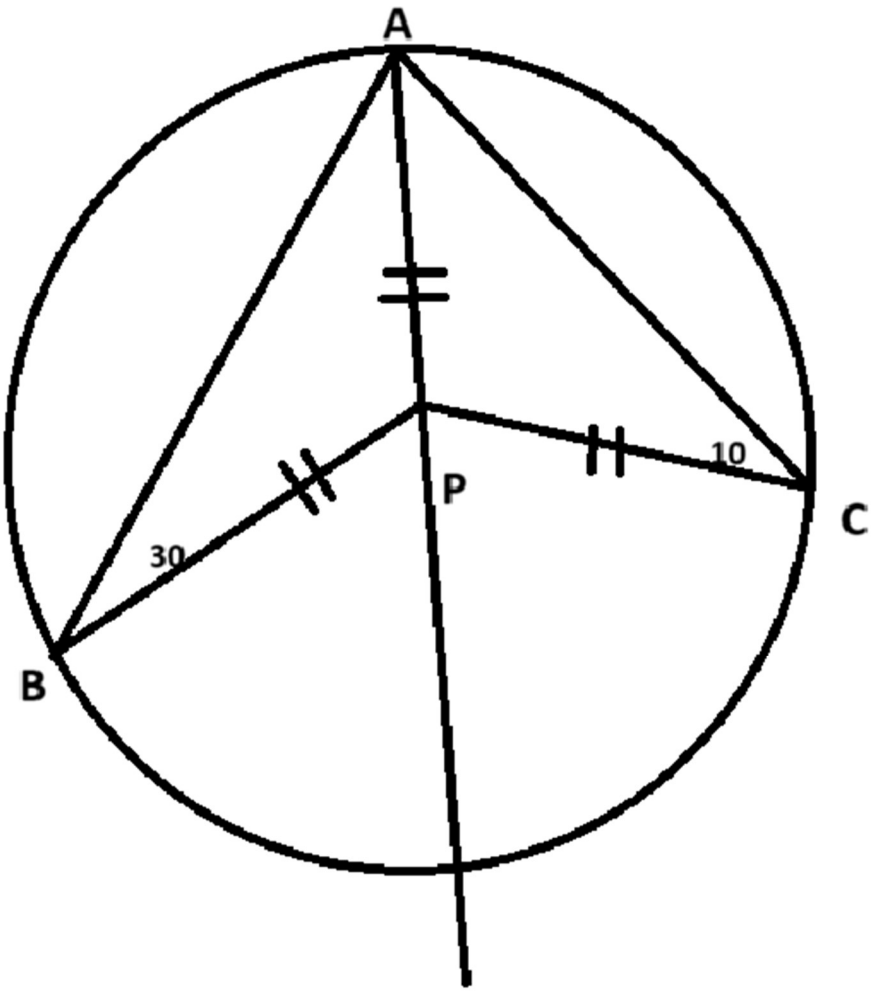
Solution:

Given: angle ABP = 30 degree, angle ACP = 10 degree

Construction: Draw a line from A passing through P

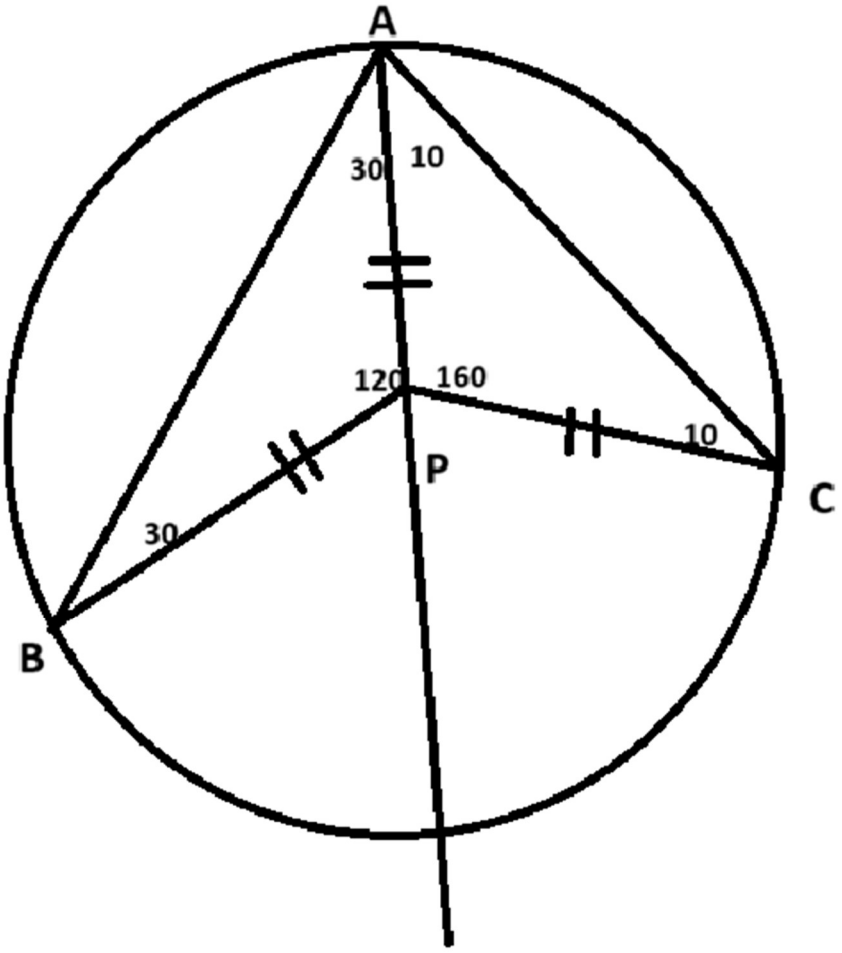


Now, AP, PB and PC are radii of same circle, so triangle APB and angle APC are isosceles triangles:

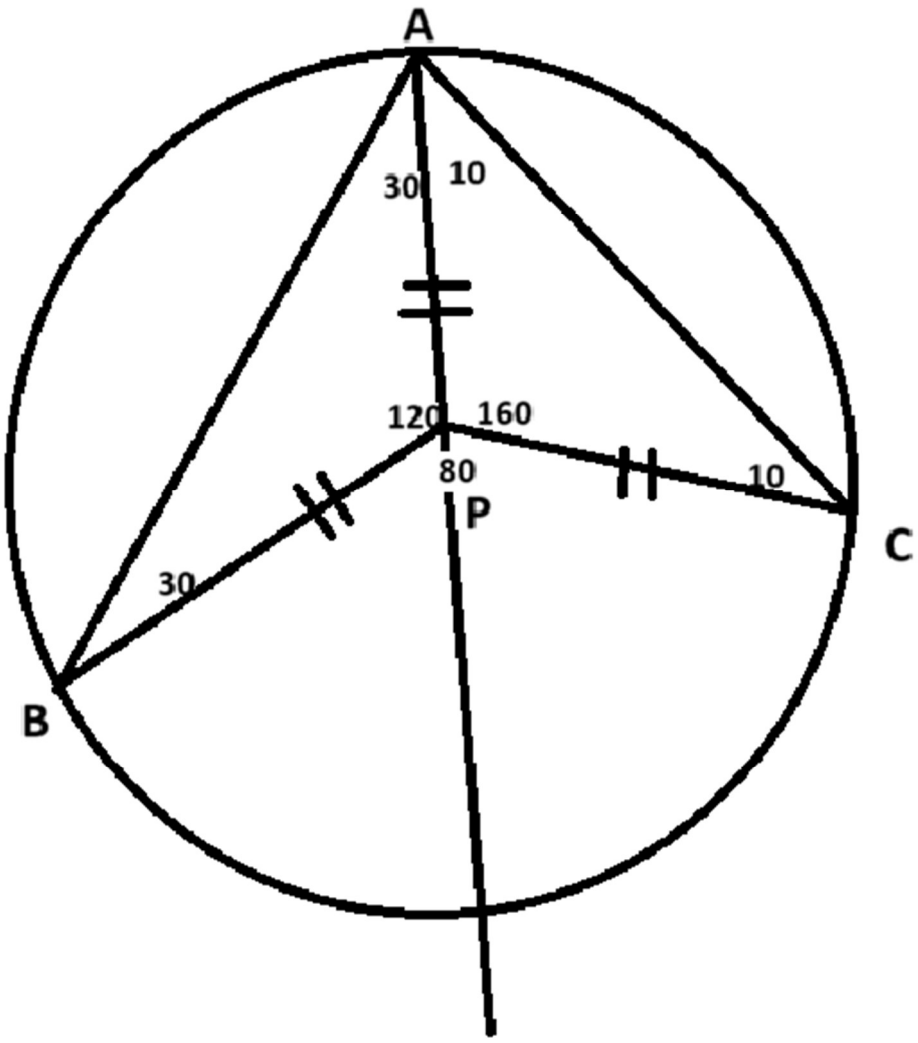


As they are isosceles triangles, angle BAP = 30 and angle CAP = 10

Therefore angle BPA = 180 – 30 – 30 = 120 and angle CPA = 180 – 10 – 10 = 160



Hence angle BPC = 360 – 120 – 160 = 80


A
30
10
120
160
80
P
10
C
30
B