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S201 / 414 GARDENERS RD. ROSEBERY 2018
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YEAR 12 – EXT.1 MATHS

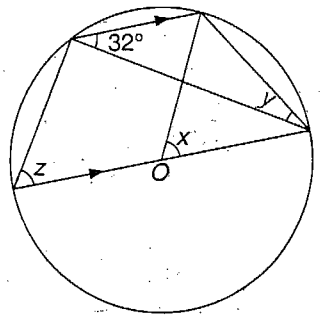
REVIEW TOPIC (SP1)

CIRCLE GEOMETRY

EXERCISES:

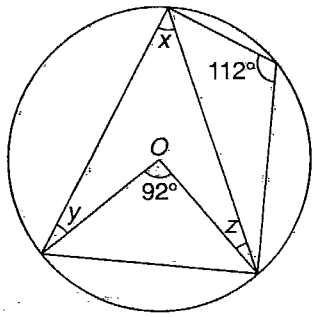
(1) Find the value of the pronumeral in each case. Give reasons for your answer.

(a)



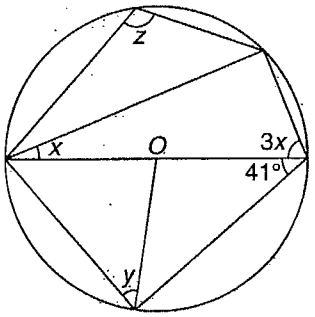
$\boxed{x = 64^0, y = 26^0, z = 58^0}$

(b)



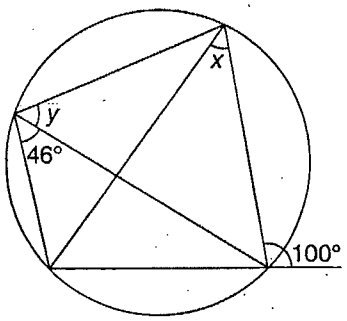
$\boxed{x = 46^0, y = 24^0, z = 22^0}$

(c)



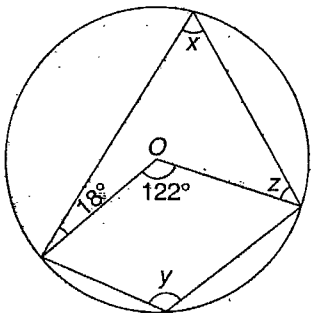
$\boxed{x = 22.5^0, y = 49^0, z = 112.5^0}$

(d)



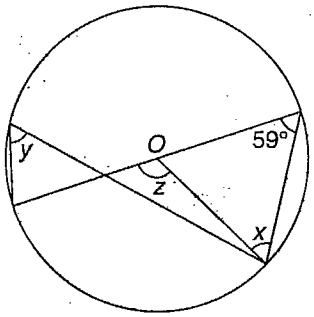
$\boxed{x = 46^0, y = 54^0}$

(e)



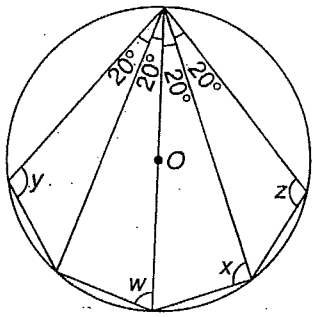
$\boxed{x = 61^0, y = 119^0, z = 43^0}$

(f)



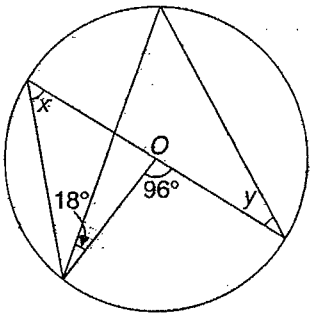
$\boxed{x = 59^0, y = 59^0, z = 118^0}$

(g)



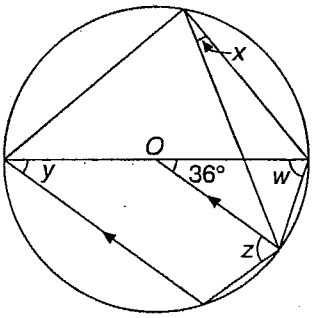
$\boxed{w = 70^0, x = 90^0, y = 110^0, z = 110^0}$

(h)



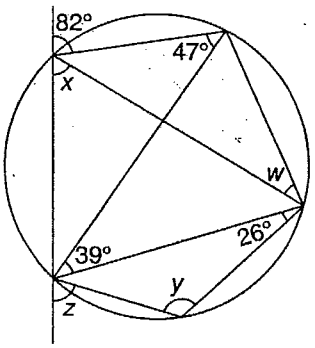
$\boxed{x = 48^0, y = 30^0}$

(i)



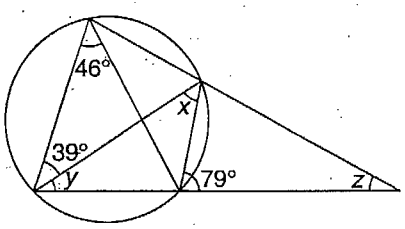
$\boxed{w = 72^0, x = 18^0, y = 36^0, z = 72^0}$

(j)



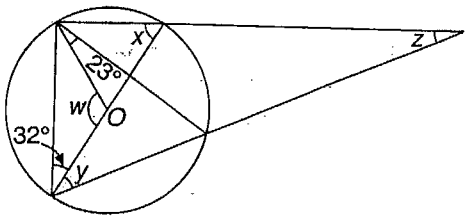
$\boxed{w = 35^0, x = 59^0, y = 121^0, z = 73^0}$

(k)



$\boxed{x = 46^0, y = 33^0, z = 29^0}$

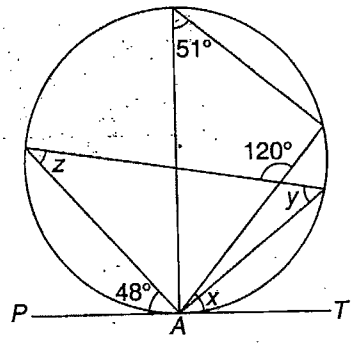
(l)



$\boxed{w = 116^0, x = 58^0, y = 35^0, z = 23^0}$

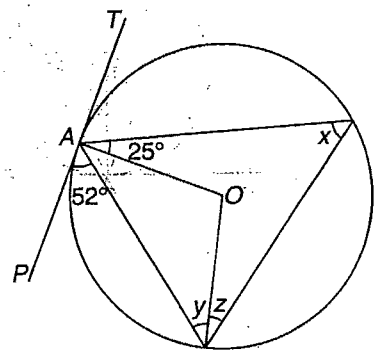
(2) Find the value of the pronumerals in each of the following diagrams. *TAP* is the tangent to the circle at *A* and *TBQ* is the tangent to the circle at *B*. *O* is the centre of the circle.

(a)



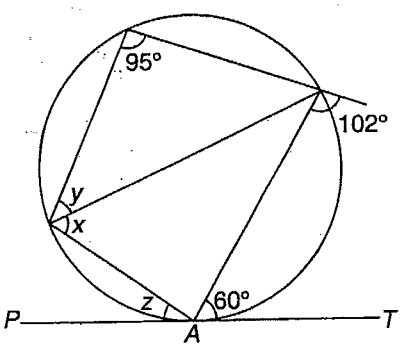
$\boxed{x = 51^0, y = 48^0, z = 39^0}$

(b)



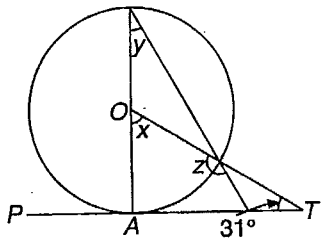
$\boxed{x = 52^0, y = 38^0, z = 27^0}$

(c)



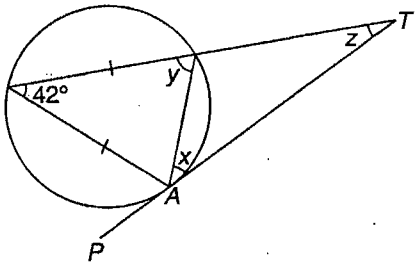
$\boxed{x = 60^0, y = 42^0, z = 35^0}$

(d)



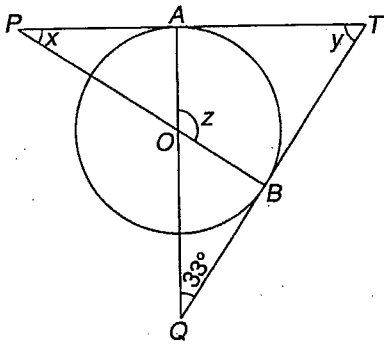
$\boxed{x = 59^0, y = 29.5^0, z = 150.5^0}$

(e)



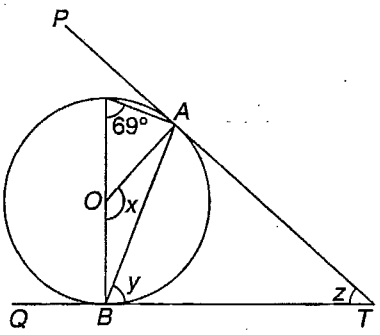
$\boxed{x = 42^0, y = 69^0, z = 27^0}$

(f)



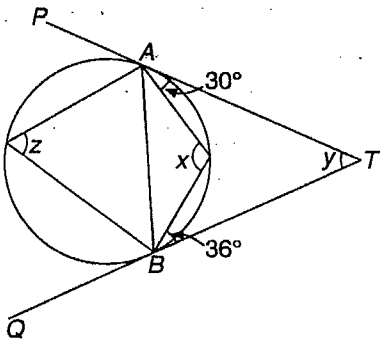
$\boxed{x = 33^0, y = 57^0, z = 123^0}$

(g)



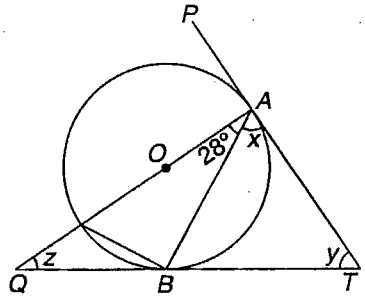
$x = 138^0, y = 69^0, z = 42^0$

(h)



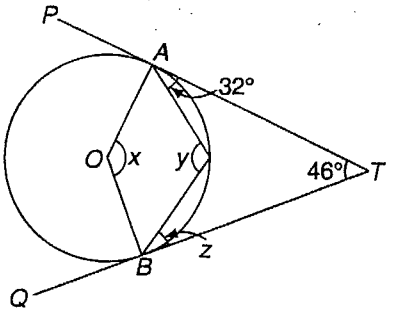
$x = 114^0, y = 48^0, z = 66^0$

(i)



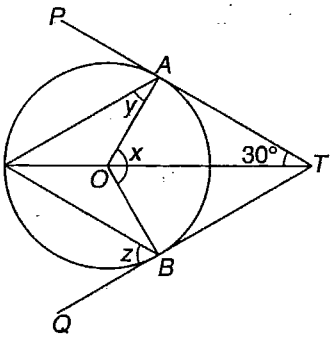
$x = 62^0, y = 56^0, z = 34^0$

(j)



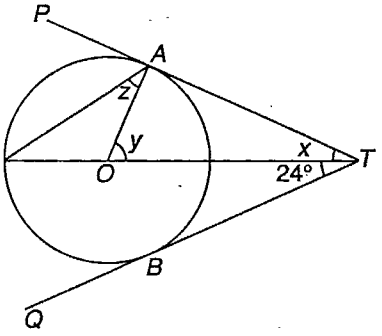
$x = 134^0, y = 113^0, z = 35^0$

(k)



$x = 120^0, y = 30^0, z = 60^0$

(l)



$x = 24^0, y = 66^0, z = 33^0$