



QT - Finding the missing angle

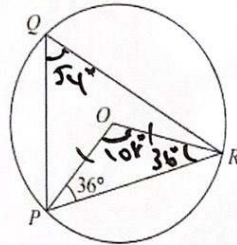


Diagram NOT
accurately drawn

Reasons

$OP = OR = \text{Radius}$

$\therefore OPR$ is isosceles

$$\begin{aligned}\angle POR &= 180 - 72 \\ &= 108^\circ\end{aligned}$$

$$\angle PQR = 54^\circ$$

Angle at centre twice angle
at circumference.

- (a) P, Q and R are points on a circle, centre O .
Angle $OPR = 36^\circ$

Work out the size of angle PQR .

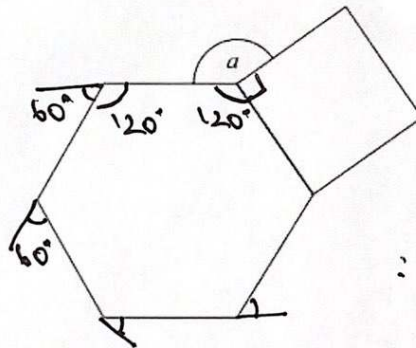


Diagram NOT
accurately drawn

Regular hexagon
external angles = 360°

$$\therefore \text{External angle} = \frac{360}{6}$$

$$= 60^\circ$$

$$\text{Internal angle} = 120^\circ$$

The diagram shows a regular hexagon and a square.

Calculate the size of the angle a .

$$\text{Let } a \text{ point add to } 360^\circ$$

$$\angle a = 360 - 120 - 90^\circ$$

$$\therefore \underline{\underline{a = 150^\circ}}$$

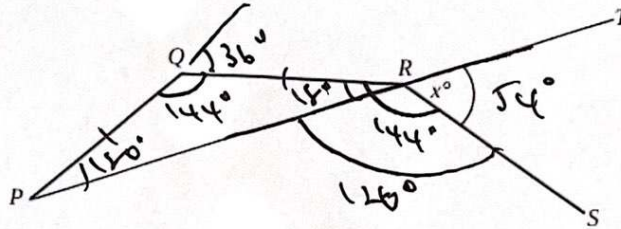


Diagram NOT accurately drawn

PQ, QR and RS are 3 sides of a regular decagon.
PRT is a straight line.
Angle TRS = x°

Work out the value of x

10 sides

External angles add to 360°

$$\therefore \frac{360}{10} = 36^\circ$$

Internal angle $144 - 36 = 108^\circ$

ΔPQR is isosceles



$x = 54^\circ$