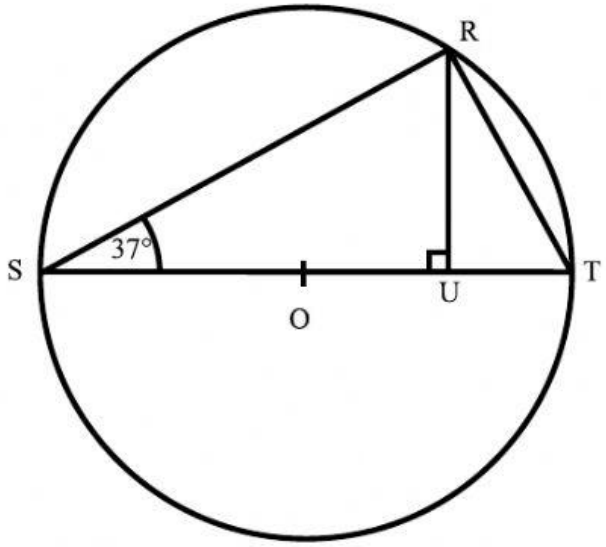
4.



R, S and T are points on the circumference of a circle, centre *O*.

ST is a diameter and Angle RST = 37°.

U is the point on ST such that angle RUS is a right angle.

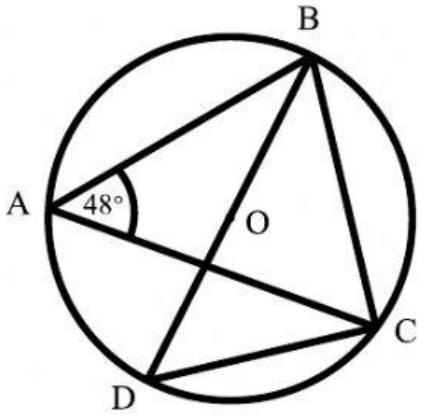
(*a*) Work out the size of angle URT. 0

(*b*) Work out the size of angle ROT. 0

(*c*) Work out the size of angle ORU. 0

(d) Find the size of angle ORT. 0

5.



A, B, C and D are points on the circumference of a circle, centre *O*.

BD is a diameter of the circle. Angle CAB = 48°.

(a) Write down the size of angle BCD. 0

(b) Find the size of angle BDC. 0

(c) Find the size of angle BOC. 0

(d) Find the size of angle CAD. 2

(e) Find the size of angle COD. 0

(f) Find the size of angle OCB. 0

6. P, Q, R and S are points on the circumference of a circle, centre, O.

TU is a tangent to the circle at the point S.

Angle ROS = 64° and angle QSU = 58°.

(i) Find the size of angle:

(a) OSQ

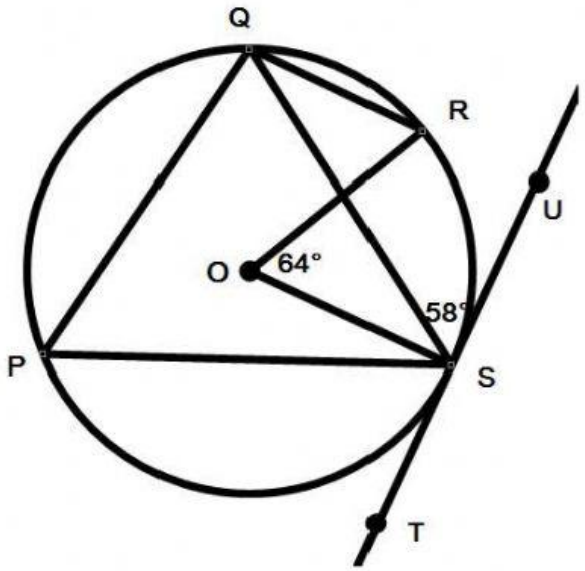
(b) SQR

(c) QPS

(d) QRS

(ii) Why are the lines QR and OS parallel?

(iii) Find the size of angle (a) QRO (b) QSR



7. P, Q, R and S are points on the circumference of a circle, centre, O.

PST is a straight line.

PQ = PS

Angle SOQ = 100° and angle RST = 78°

Work out the size of angle:

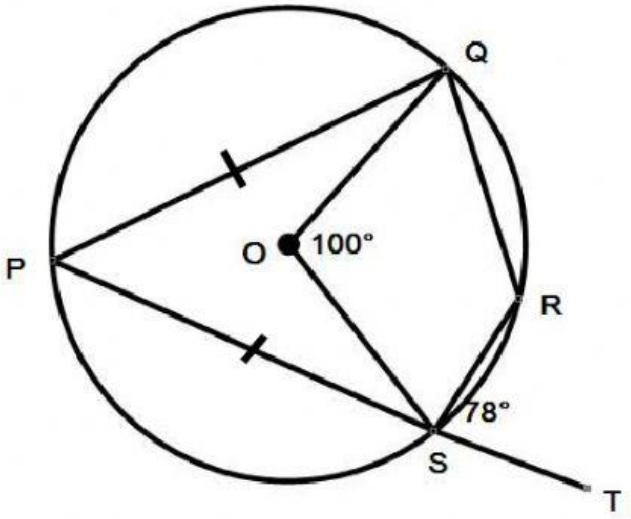
(a) QRS

(b) PQS

(c) OQS

(d) PSO

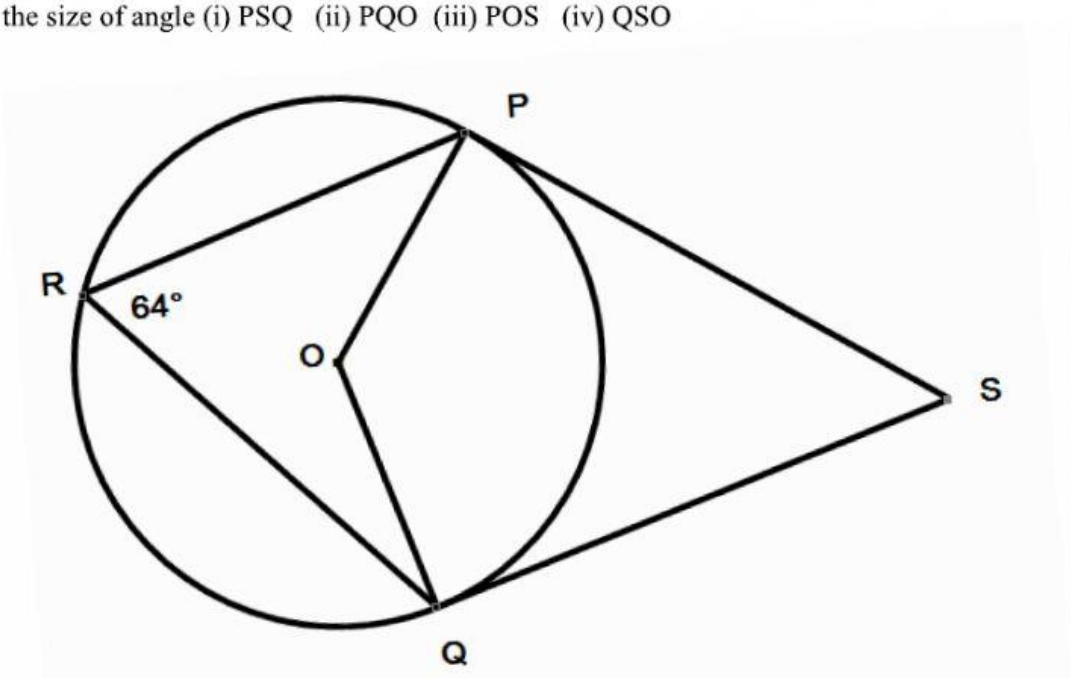
(e) SQR



8. P, Q and R are points on the circumference of a circle, centre, O.

Angle PRQ = 64°. SP and SQ are tangents to the circle at the points P and Q respectively.

Work out the size of angle (i) PSQ (ii) PQO (iii) POS (iv) QSO



9. P, Q and R are points on the circumference of a circle, centre, O.

Angle PSQ = 60°. SP and SQ are tangents to the circle at the points P and Q respectively.

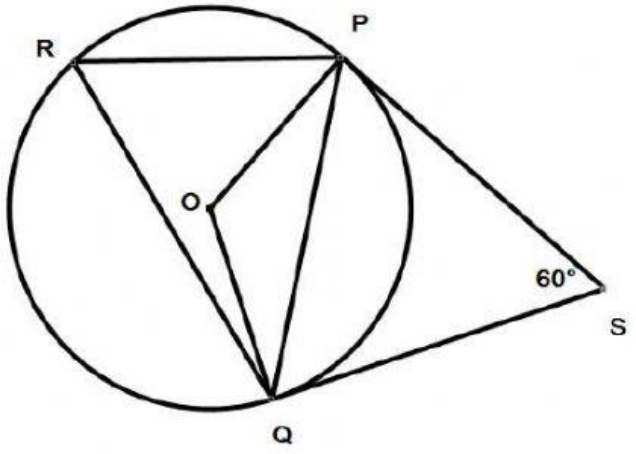
(a) Work out the size of angle:

(i) QPS

(ii) PQO

(iii) PRQ

(iv) POQ

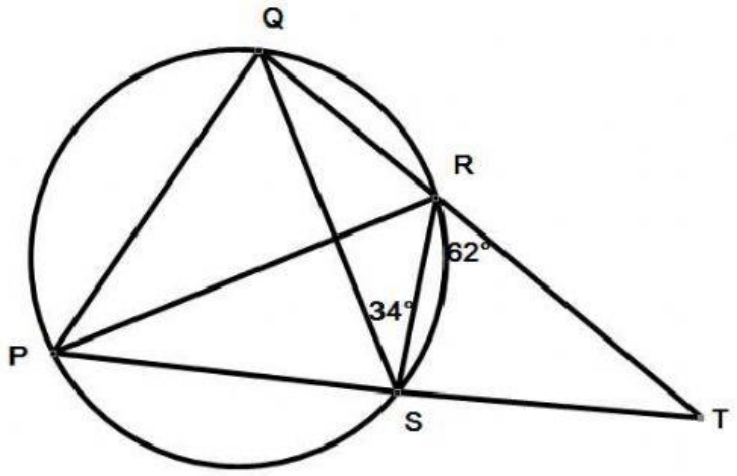


(b) What type of triangle is PQS?

(c) Given that angle OQR = 10°,

work out the size of angle OPR.

10.



P, Q, R and S are points on the circumference of a circle.

PST and QRT are straight lines.

Angle QSR = 34° and angle SRT = 62°.

(a) Find the size of the angle:

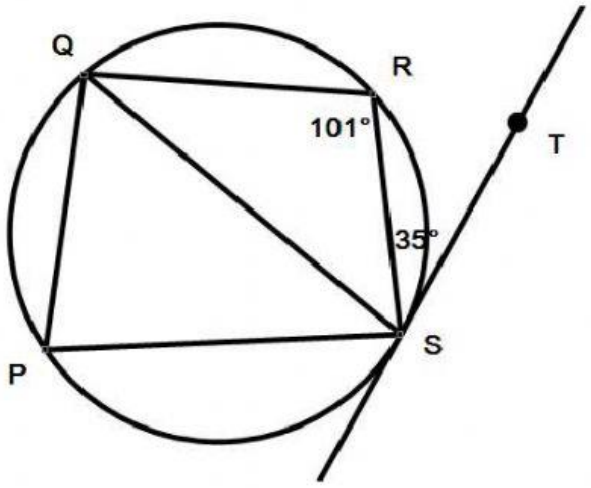
(i) SQR (ii) RPS

(b) Given that angle PRS = 62°, show that PR is a diameter of the circle.

11. P, Q, R and S are points on the circumference of a circle.

TS is the tangent to the circle at the point S.

Angle RST = 35° and angle QRS = 101°.

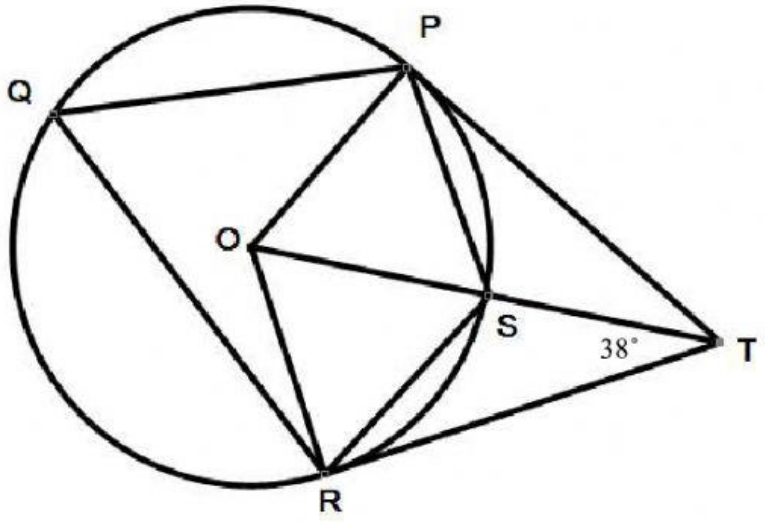


(a) Explain why QS cannot be a diameter of the circle.

(b) Find the size of angle:

(i) QPS (ii) SQR (iii) QPR

12.



P, Q, R and S are points on the circumference of a circle, centre, O.

PT and TR are tangents to the circle.

OST is a straight line.

Angle OTR = 38°.

Find the size of the angle:

(i) ROT (ii) PQR (iii) SRT (iv) PSO (v) PST