Name: _____

ASM Tuition Academy

Congruent Triangles

Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
  - there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out.**

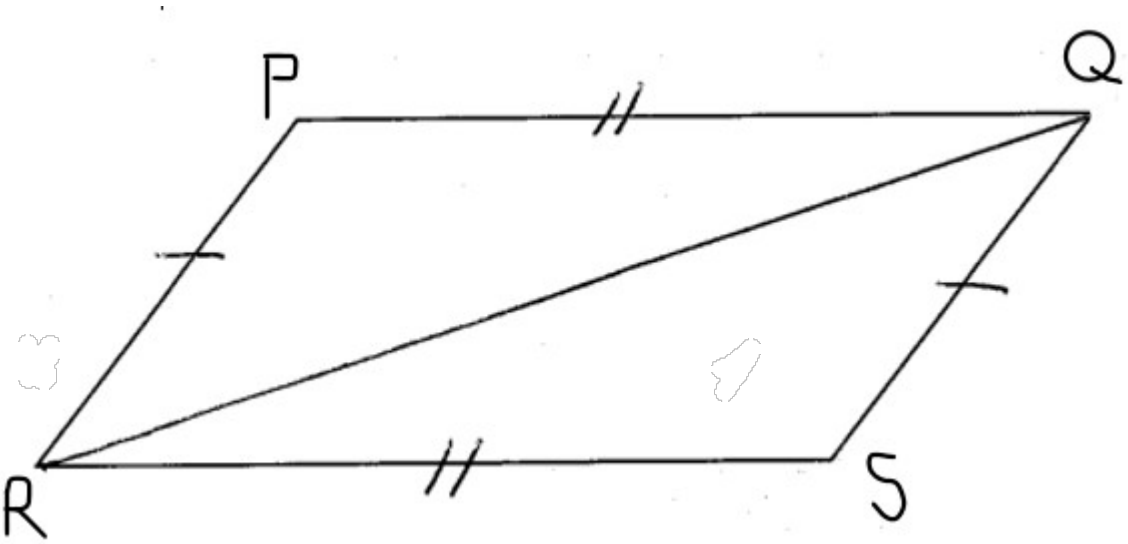
Information:

- The marks for each question are shown in brackets
  - use this as a guide as to how much time to spend on each question.

Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

Q1- PQRS is a parallelogram.



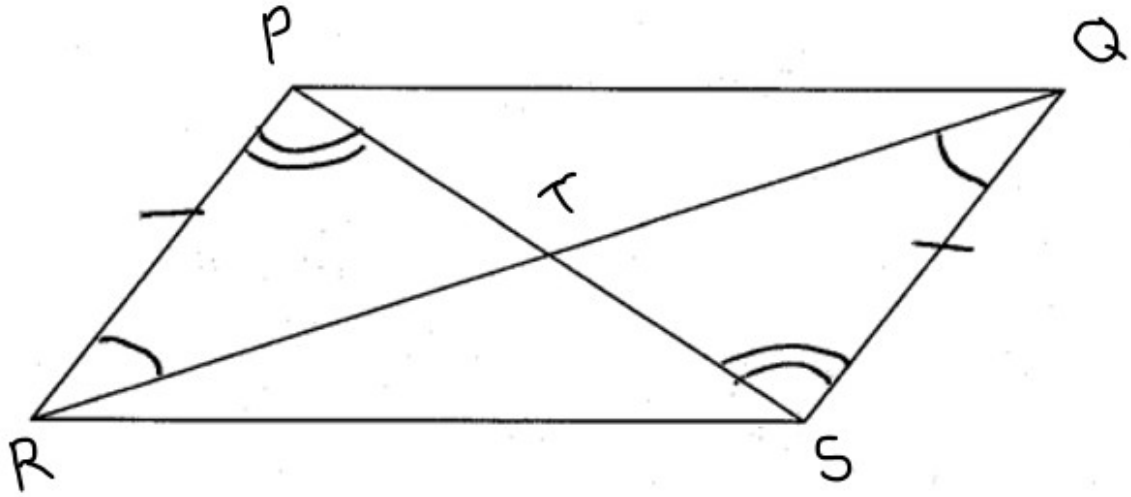
Prove that triangle PQR is congruent to triangle SRQ

(Total for Question 1 is 3 marks)

Q2- PQRS is a parallelogram.

T is the point where the diagonals PS and RQ meet.

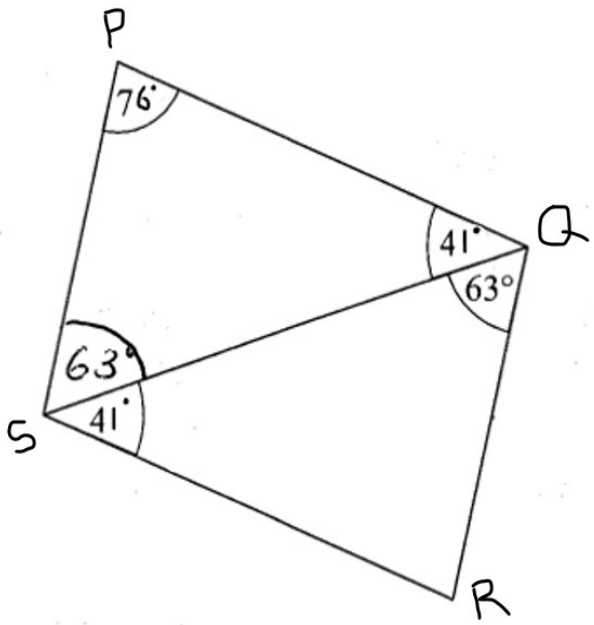
Prove that triangle PRT is congruent to triangle QST



(Total for Question 2 is 3 marks)

Q3- The diagram shows two triangles, PQS and QRS.

Prove that triangle PQS is congruent to triangle QRS.

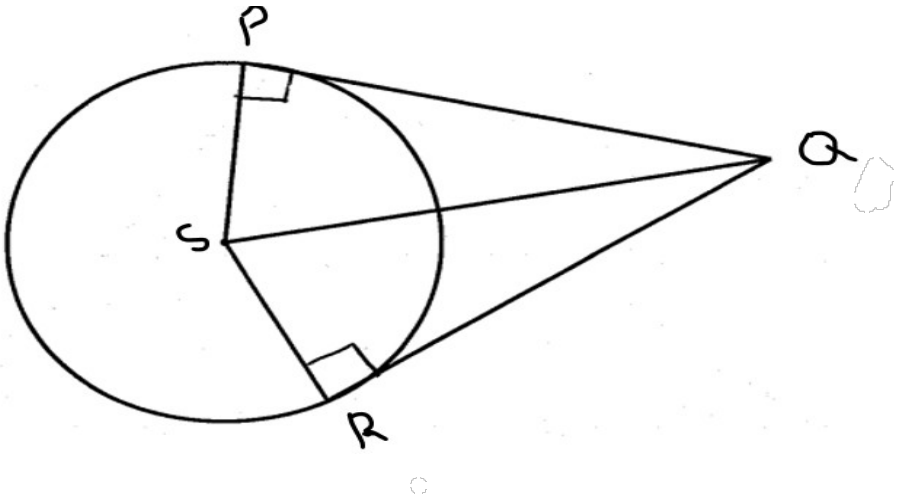


(Total for Question 3 is 3 marks)

Q4- P and R are points on a circle, centre S.

PQ and RQ are tangents to the circle.

Prove that triangle PSQ is congruent to triangle RSQ



(Total for Question 4 is 4 marks)

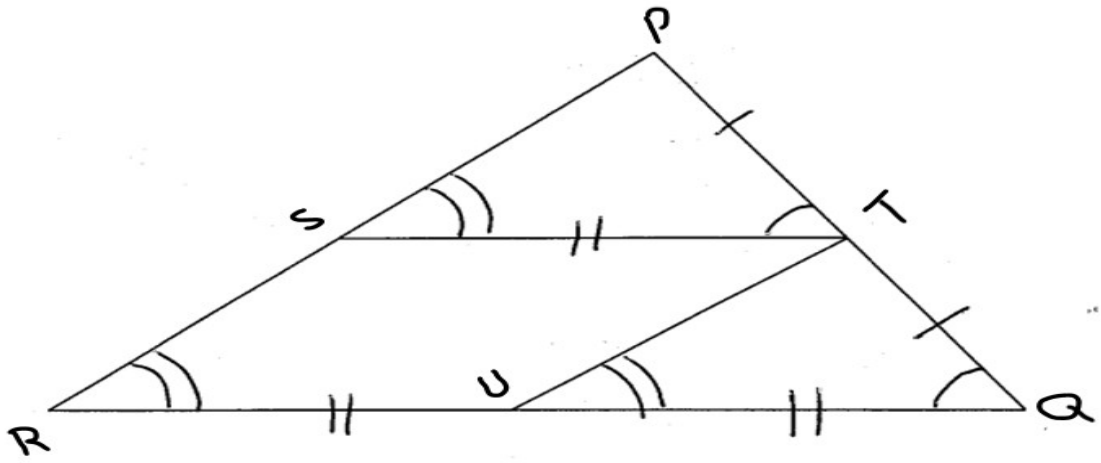
Q5- PQR is a triangle.

RSTU is a parallelogram such that:

S is the midpoint of PR

T is the midpoint of PQ

U is the midpoint of QR

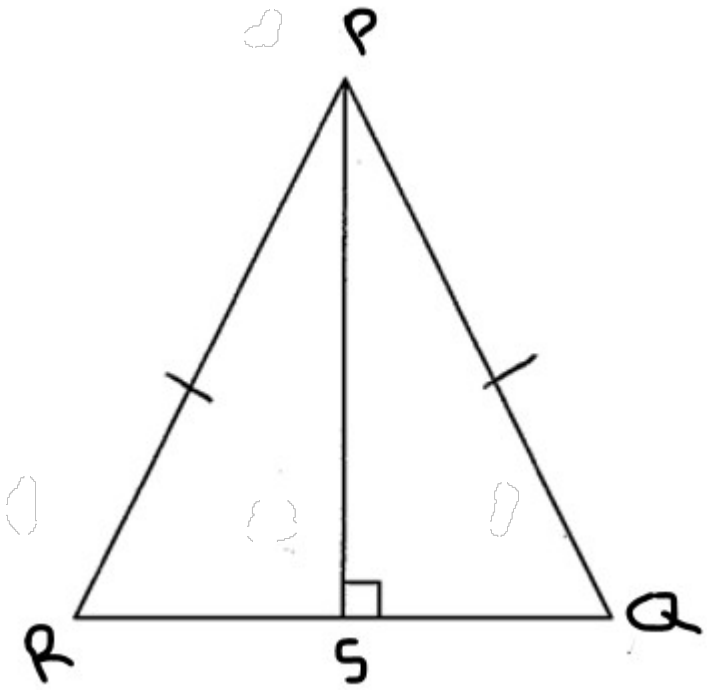


(Total for Question 5 is 4 marks)

Q6- PQR is an equilateral triangle.

S lies on QR. PS is perpendicular to QR.

Prove that angle RPS is equal to angle QPS.



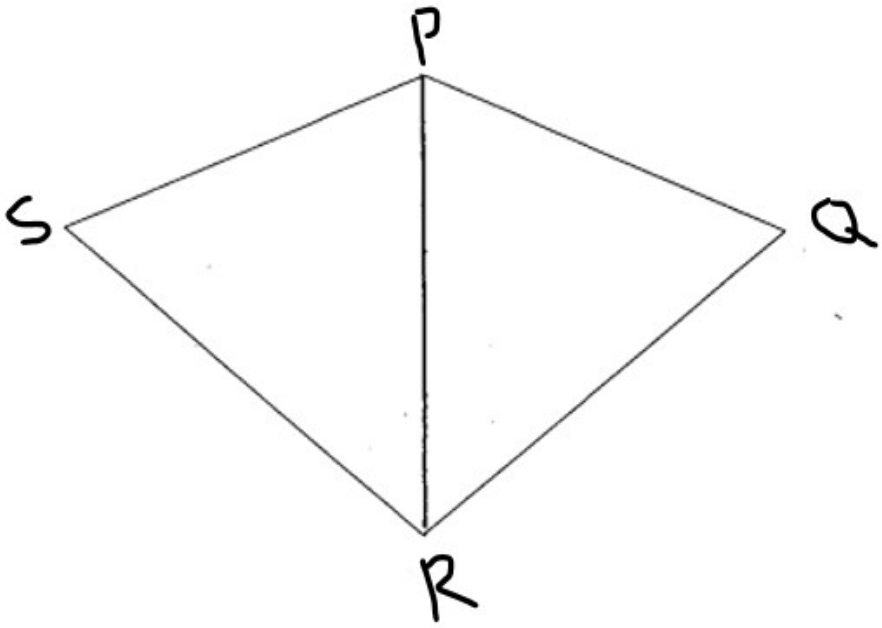
(Total for Question 6 is 4 marks)

Q7- PQRS is a quadrilateral.

PQ = PS

QR = RS

Prove that angle PQR is equal to angle PSR



(Total for Question 7 is 4 marks)