EXAM PAPERS PRACTICE

GCSE OCR Math J560

Congruent Triangles
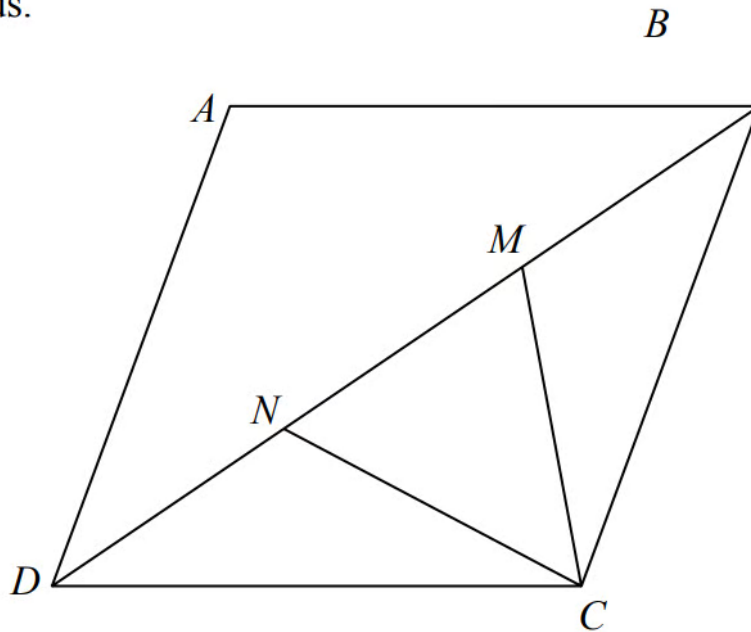
Question Paper

"We will help you to achieve A Star "

Question 1

ABCD is a rhombus.

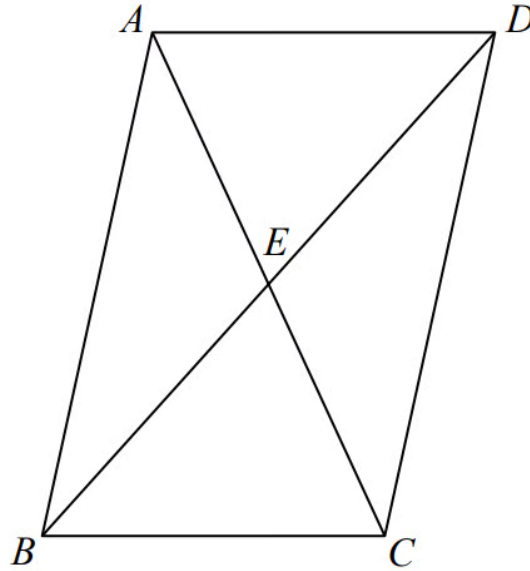*M* and *N* are points on *BD* such that *DN* = *MB*.

Prove that triangle *DNC* is congruent to triangle *BMC*.

[3 marks]

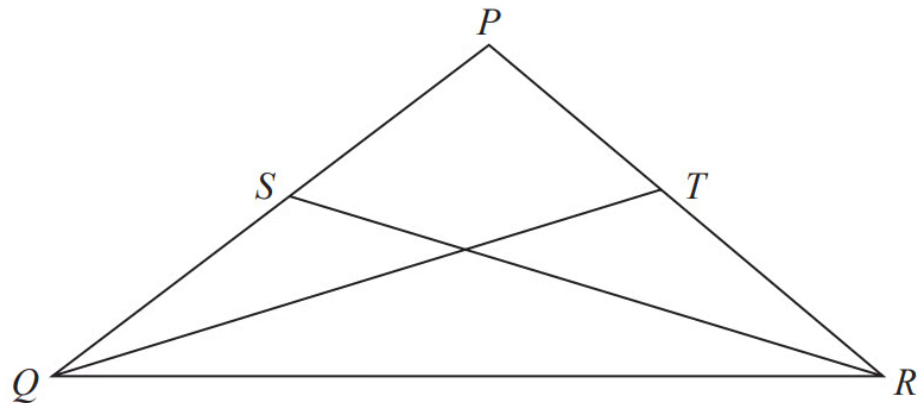**Question 2**

$ABCD$ is a parallelogram.

E is the point where the diagonals AC and BD meet.

Prove that triangle ABE is congruent to triangle CDE.

[3 marks]

Question 3

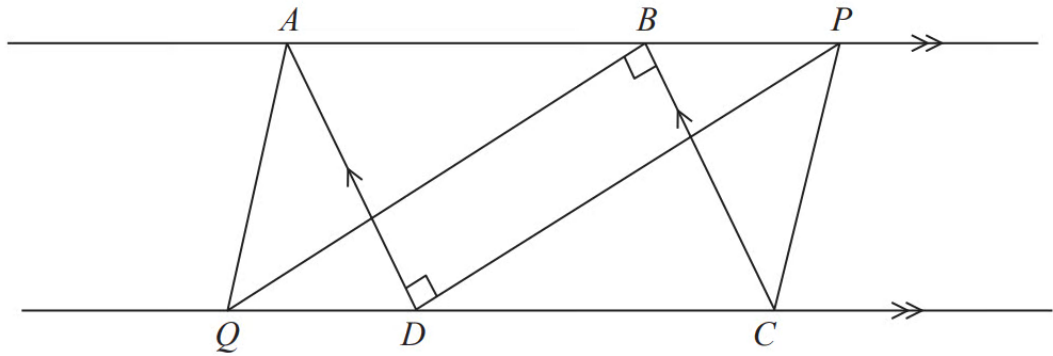$PQ = PR.$
S is the midpoint of PQ.
T is the midpoint of PR.

Prove triangle QTR is congruent to triangle RSQ.

[3 marks]

Question 4

ABCD is a parallelogram.
ABP and *QDC* are straight lines.
Angle *ADP* = angle *CBQ* = 90°

(a) Prove that triangle *ADP* is congruent to triangle *CBQ*.
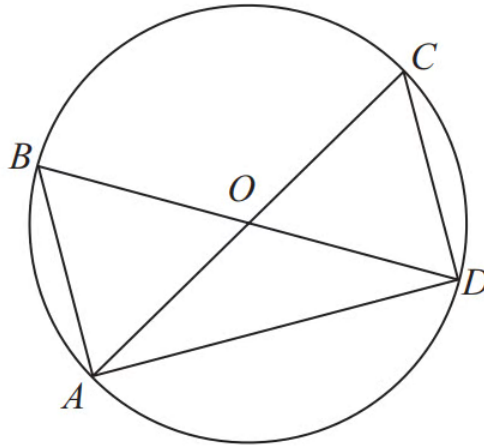
[3 marks]

Question 5

Diagram **NOT** accurately drawn
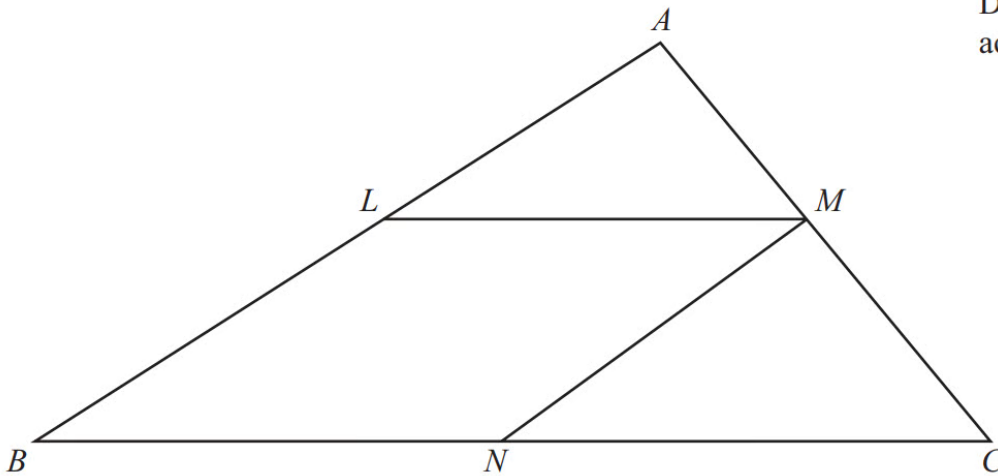
AOC and *BOD* are diameters of a circle, centre *O*.

Prove that triangle *ABD* and triangle *DCA* are congruent.

[3 marks]

EXAM PAPERS PRACTICE

Question 6

Diagram **NOT**
accurately drawn

The diagram shows a triangle *ABC*.

LMNB is a parallelogram where
    L is the midpoint of *AB*,
    M is the midpoint of *AC*,
and *N* is the midpoint of *BC*.

Prove that triangle *ALM* and triangle *MNC* are congruent.
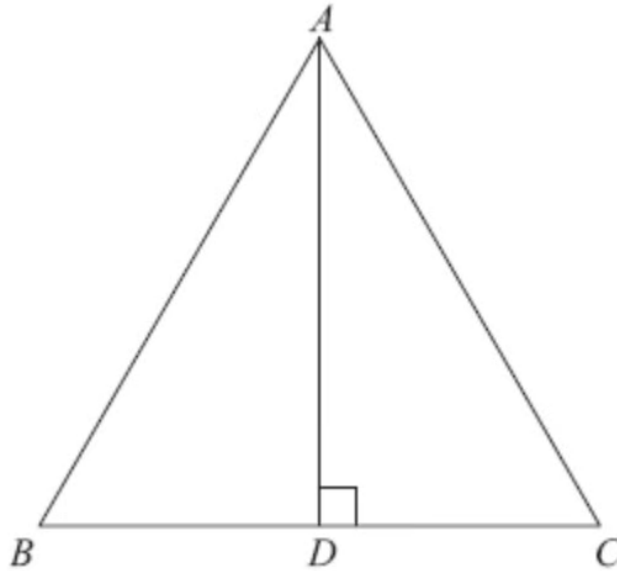You must give reasons for each stage of your proof.

[3 marks]

Question 7

Diagram **NOT** accurately drawn

ABC is an equilateral triangle.
D lies on *BC*.
AD is perpendicular to *BC*.

(a)   Prove that triangle *ADC* is congruent to triangle *ADB*.

[3 marks]

Question 8

(b) Hence, prove that $BD = \dfrac{1}{2}AB$.

[2 marks]