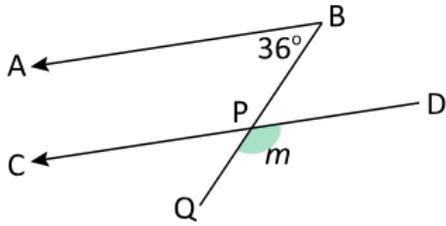


# Year 8 Class 19 questions

Q1

Complete the steps to find  $m$ .



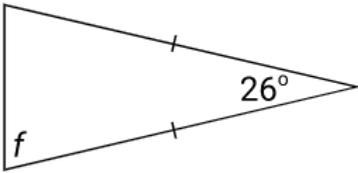
$\angle CPQ = \square^\circ$  (  )

$m + 36^\circ = 180^\circ$  (  )

$m = \square^\circ$

Q2

Find the value of  $f$ . °



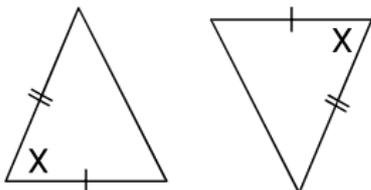
Q3

Select all the trapeziums.



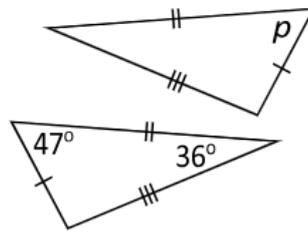
Q4

Which test proves the two triangles are congruent?



- RHS   
  SSS   
  SAS   
  AAS

Q5

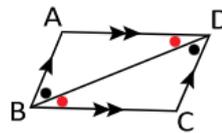


Which test shows why the triangles are congruent?

- AAS     SSS  
 SAS     RHS

What is the value of  $p$ ? °

Q6



ABCD is a quadrilateral where  $AB \parallel CD$ ,  $AD \parallel BC$ . Noting  $BD$  is common, which test shows  $\triangle ABD$  is congruent to  $\triangle CDB$ .

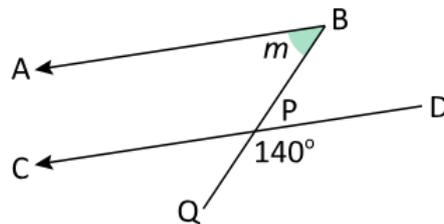
- ASA     RHS     SAS

Choose ALL of the true statements.

- $BD$  bisects  $\angle BAC$   
  $AB = CD$   
 ABCD is a parallelogram  
  $BC = AD$

Q7

Complete the steps to find  $m$ .



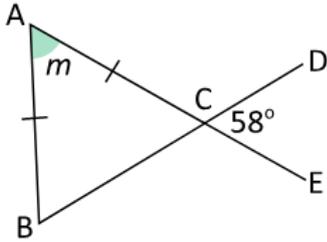
$\angle CPB = \square^\circ$  (  )

$m + 140^\circ = 180^\circ$  (  )

$m = \square^\circ$

Q8

Complete the steps to find  $m$ .



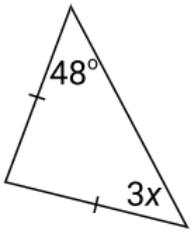
$\angle ACB = \square^\circ$  (  )

$\angle ABC = \square^\circ$  (  )

$m = \square^\circ$  (  )

Q9

Find the value of  $x$ .

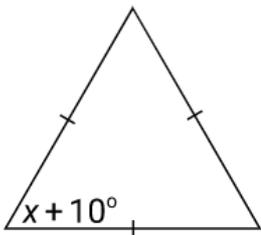


$3x = \square^\circ$

$\therefore x = \square^\circ$

Q10

Find the value of  $x$ .



$x + 10^\circ = \square^\circ$

$\therefore x = \square^\circ$

Q11

Choose ALL of the correct descriptions for a rectangle.

- There are 0 axes of symmetry.
- All sides are equal.
- Opposite sides are parallel.
- All angles are  $90^\circ$ .

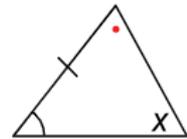
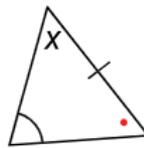
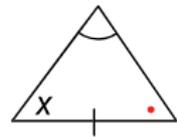
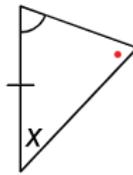
Q12

Choose ALL of the correct descriptions for a parallelogram.

- There are 4 axes of symmetry.
- Opposite sides are equal.
- Opposite sides are parallel.
- Angles add up to  $180^\circ$ .

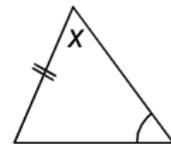
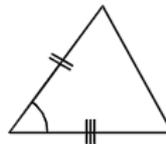
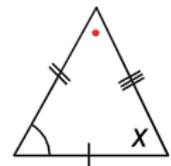
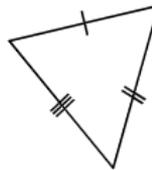
Q13

Using the AAS congruence test, which two triangles are congruent?

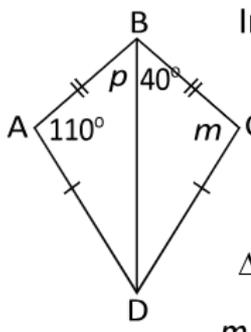


Q14

Using the SSS congruence test, which two triangles are congruent?



Q15



In  $\triangle ABD, \triangle CBD$

(i)  $AB = \square$  (given)

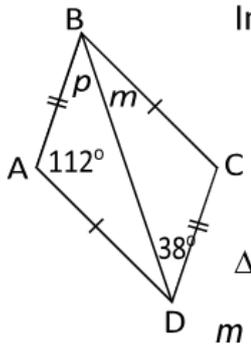
(ii)  $AD = \square$  (given)

(iii)  $\square$  is common

$\triangle ABD \equiv \triangle CBD$  ( $\square$ )

$m = \square^\circ$        $p = \square^\circ$

Q16



In  $\triangle ABD, \triangle CBD$

(i)  $AB = \square$  (given)

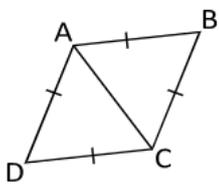
(ii)  $AD = \square$  (given)

(iii)  $\square$  is common

$\triangle ABD \equiv \triangle CBD$  ( $\square$ )

$m = \square^\circ$        $p = \square^\circ$

Q17



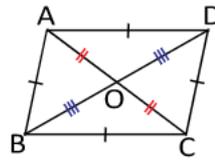
ABCD is a quadrilateral where  $AB = BC = CD = DA$ . Noting AC is a common side, which test shows that  $\triangle ABC \equiv \triangle ADC$ ?

SSS    AAS    RHS

Choose ALL of the true statements.

- $\angle B = \angle D$
- ABCD is a rhombus
- AC bisects  $\angle DCB$
- $\triangle ABC$  is equilateral

Q18



ABCD is a quadrilateral where  $AB = CD$ . Noting diagonals AC and BD bisect each other at O, which test shows that  $\triangle AOB \equiv \triangle COD$ ?

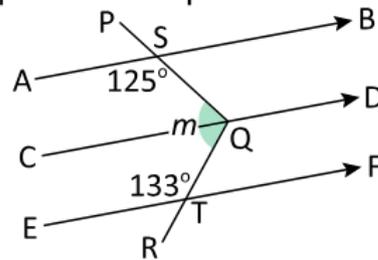
SSS    RHS    AAS

Choose ALL of the true statements.

- $\angle AOB = \angle COD$
- $\angle ABO = \angle CDO$
- $AB \parallel CD$
- BD bisects  $\angle BAC$

Q19

Complete the steps to find  $m$ .



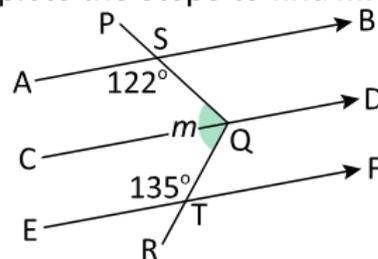
$\angle PQD = \square^\circ$  ( $\square$ )

$\angle RQD = \square^\circ$  ( $\square$ )

$m = \square^\circ$  ( $\square$ )

Q20

Complete the steps to find  $m$ .



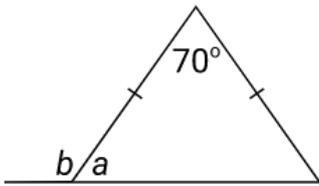
$\angle PQD = \square^\circ$  ( $\square$ )

$\angle RQD = \square^\circ$  ( $\square$ )

$m = \square^\circ$  ( $\square$ )

Q21

Find the value of  $a$  and  $b$ .

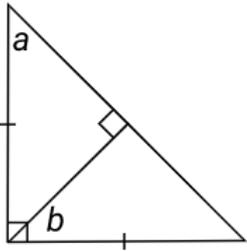


$a = \square^\circ$

$b = \square^\circ$

Q22

Find the value of  $a$  and  $b$ .



$a = \square^\circ$

$b = \square^\circ$

Q23

A parallelogram has 2 pairs of parallel sides. Which shape is NOT a parallelogram?

- A square
- A rectangle
- A kite
- A rhombus

Q24

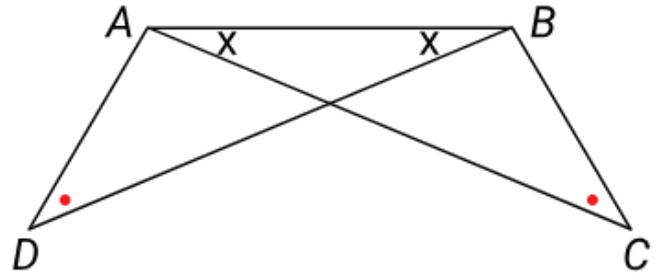
A quadrilateral has 2 sides which are 3 cm and 2 sides which are 5 cm.

Which shapes could the quadrilateral be?

- A rhombus
- A parallelogram
- A kite
- A trapezium

Q25

$\triangle ABC$  is congruent to  $\triangle BAD$ .

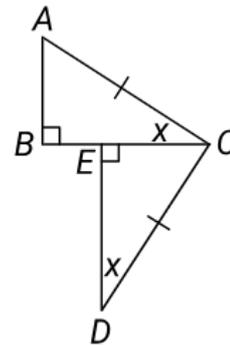


Which side must be equal to  $BC$ ?

- $AB$        $AD$        $BD$        $AC$

Q26

Which test proves the two triangles congruent?  $\triangle ABC \equiv \triangle CED$ .



- RHS       SSS       SAS       AAS

Q27

In  $\triangle ABD, \triangle CDB$

(i)  $\angle ABD = \angle \square$

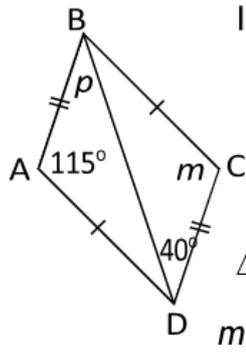
(ii)  $\angle ADB = \angle \square$

(iii)  $\square$  is common

$\triangle ABD \equiv \triangle CDB$  ( $\square$ )

$m = \square$        $p = \square$

Q28



In  $\triangle ABD, \triangle CDB$

(i)  $AB = \square$  (given)

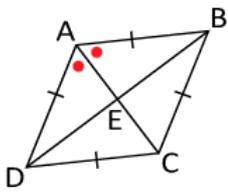
(ii)  $AD = \square$  (given)

(iii)  $\square$  is common

$\triangle ABD \equiv \triangle CDB$  ( $\square$ )

$m = \square^\circ$        $p = \square^\circ$

Q29



ABCD has 4 equal sides.

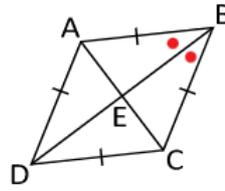
Noting AE is common and the equal angles shown, which test shows that  $\triangle AED \equiv \triangle AEB$ ?

RHS     SSS     SAS

Choose ALL of the true statements.

- $\angle AEB = 90^\circ$
- $\angle ADE = \angle ABE$
- AC bisects DB
- $\angle ABC = 45^\circ$

Q30



ABCD has 4 equal sides.

Noting BE is common and the equal angles shown, which test shows that  $\triangle BAE \equiv \triangle BCE$ ?

RHS     SSS     SAS

Choose ALL of the true statements.

- $\angle BEC = 90^\circ$
- $\angle ABC = 45^\circ$
- DB bisects AC
- $\angle BAE = \angle BCE$