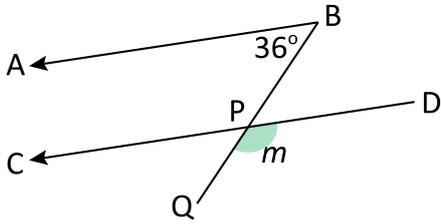


Year 8 Class 19 questions

Q1

Complete the steps to find m .



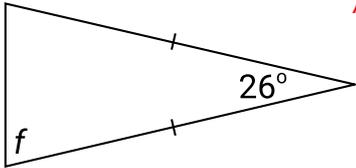
$$\angle CPQ = \boxed{36}^\circ \quad (\text{corresp. } \angle\text{'s, } AB \parallel CD)$$

$$m + 36^\circ = 180^\circ \quad (\angle\text{'s on a str. line } 180)$$

$$m = \boxed{144}^\circ$$

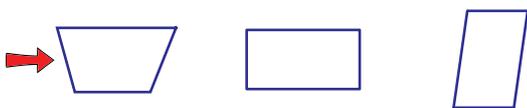
Q2

Find the value of f . $\boxed{77}^\circ$



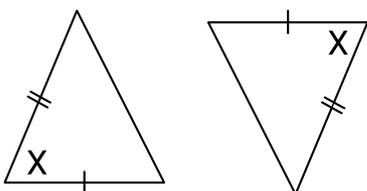
Q3

Select all the trapeziums.



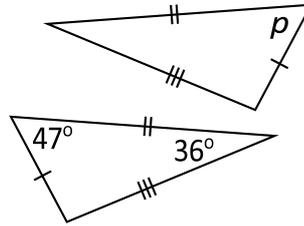
Q4

Which test proves the two triangles are congruent?



- RHS
 SSS
 SAS
 AAS

Q5

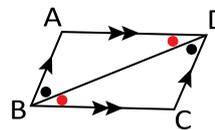


Which test shows why the triangles are congruent?

- AAS
 SSS
 SAS
 RHS

What is the value of p ? $\boxed{47}^\circ$

Q6



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

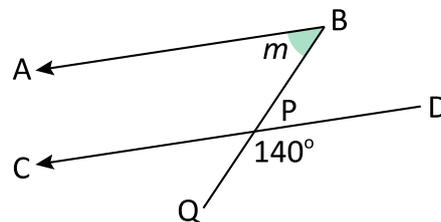
- ASA
 RHS
 SAS

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 .



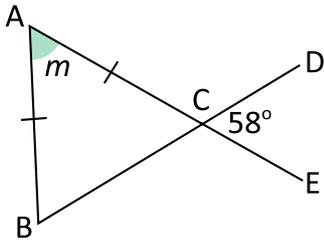
$$\angle CPB = \boxed{140}^\circ \quad (\text{vert. opp. } \angle\text{'s})$$

$$m + 140^\circ = 180^\circ \quad (\text{co-int. } \angle\text{'s, } AB \parallel CD)$$

$$m = \boxed{40}^\circ$$

Q8

Complete the steps to find m .



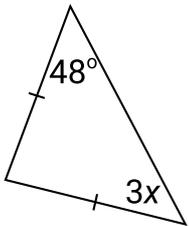
$$\angle ACB = \boxed{58}^\circ \quad (\text{vert. opp. } \angle\text{'s})$$

$$\angle ABC = \boxed{58}^\circ \quad (\text{equal base } \angle\text{'s, isos. } \Delta)$$

$$m = \boxed{64}^\circ \quad (\angle \text{ sum of } \Delta = 180^\circ)$$

Q9

Find the value of x .

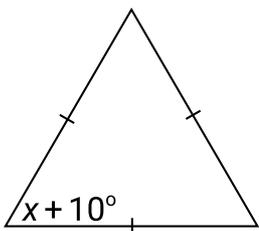


$$3x = \boxed{48}^\circ$$

$$\therefore x = \boxed{16}^\circ$$

Q10

Find the value of x .



$$x + 10^\circ = \boxed{60}^\circ$$

$$\therefore x = \boxed{50}^\circ$$

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° .

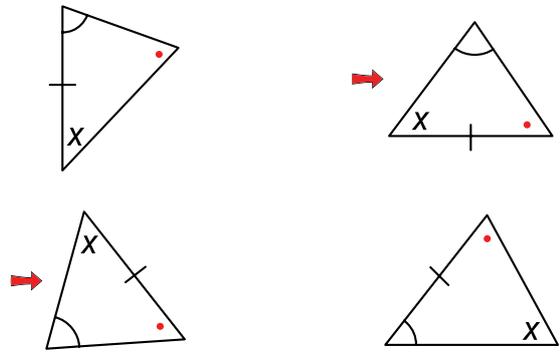
Q12

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° .

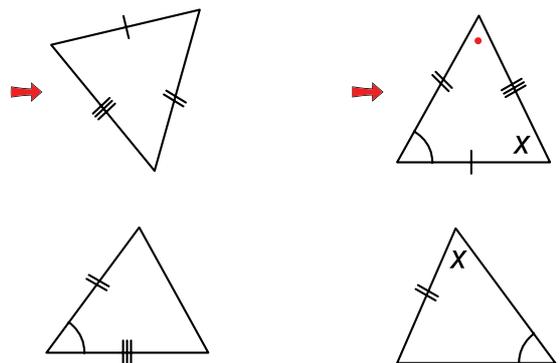
Q13

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

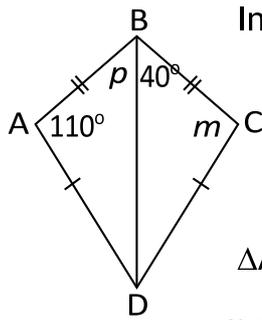


Q14

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



Q15



In $\triangle ABD, \triangle CBD$

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

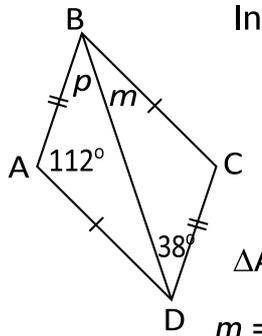
(ii) $AD = \square$ (given) CD

(iii) \square is common BD

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

$m = \square^\circ$ $p = \square^\circ$
110 40

Q16



In $\triangle ABD, \triangle CBD$

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

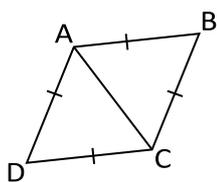
(ii) $AD = \square$ (given) BC

(iii) \square is common BD

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

$m = \square^\circ$ $p = \square^\circ$
30 38

Q17



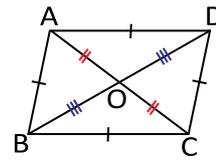
ABCD is a quadrilateral where $AB = BC = CD = DA$. Noting AC is a common side, which test shows that $\triangle ABC \equiv \triangle ADC$?

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 $\triangle AOB \equiv \triangle COD$?

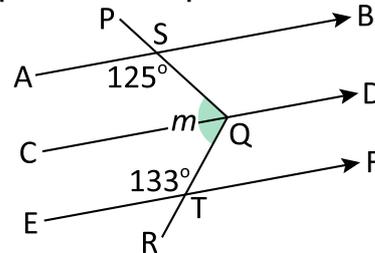
SSS RHS AAS

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 .



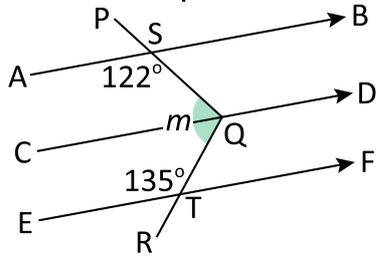
$\angle PQD = \square^\circ$ (\square)
125 alt. \angle 's, $AB \parallel CD$

$\angle RQD = \square^\circ$ (\square)
133 alt. \angle 's, $EF \parallel CD$

$m = \square^\circ$ (\square)
102 \angle 's at a pt. add to 360°

Q20

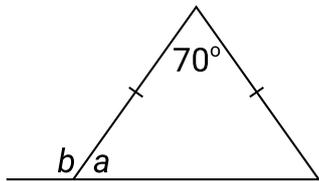
Complete the steps to find m .



$\angle P Q D = \boxed{122}^{\circ}$ (alt. \angle 's, $AB \parallel CD$)
 $\angle R Q D = \boxed{135}^{\circ}$ (alt. \angle 's, $EF \parallel CD$)
 $m = \boxed{103}^{\circ}$ (\angle 's at a pt. add to 360°)

Q21

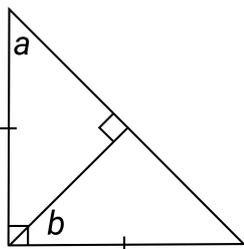
Find the value of a and b .



$a = \boxed{55}^{\circ}$
 $b = \boxed{125}^{\circ}$

Q22

Find the value of a and b .



$a = \boxed{45}^{\circ}$
 $b = \boxed{45}^{\circ}$

Q23

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

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

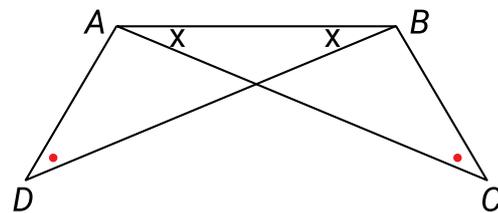
Q24

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 $\triangle BAD$.

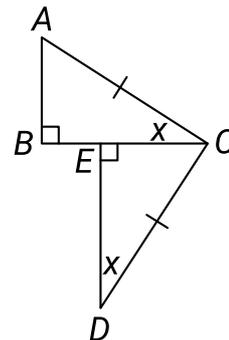


Which side must be equal to BC ?

- AB AD BD AC

Q26

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



- RHS SSS SAS AAS

Q27

In $\triangle ABD, \triangle CDB$

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

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

(iii) is common BD

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

$m =$ 17 $p =$ 15

Q28

In $\triangle ABD, \triangle CDB$

(i) $AB =$ (given) CD

(ii) $AD =$ (given) BC

(iii) is common BD

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

$m =$ $^{\circ}$ $p =$ $^{\circ}$

115 40

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
- $\angle BAE = \angle BCE$