INDIAN SCHOOL NIZWA – WORKSHEET

MATHEMATICS

CH: 7 :Congruence of Triangles

Name: _____ Date:_____ Class: VII Sec: ___

Q 1.Fill in the Blanks

(i) If two figures have exactly the same shape and size they are said to be _____. For congruence we use the symbol_____.

(ii) Two line segments are congruent if they have the same_____.

(iii) Two angles are congruent if they have the same_____.

(iv) Two rectangles are Congruent if they have the same_____and_____.

(v) Two_____are Congruent if they have the same radius.

Q.2. Write true or false:-

(i) All squares are congruent.

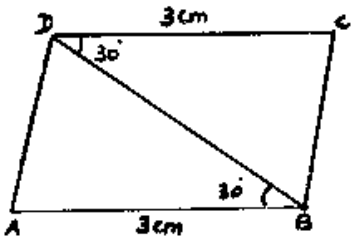
(ii) If two figures have equal areas they are congruent.

(iii) If two squares have equal areas they are congruent.

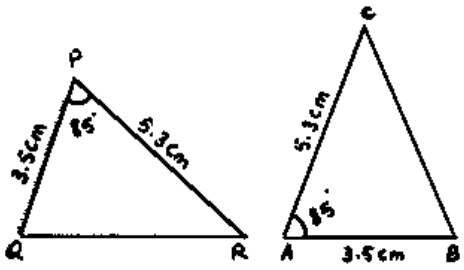
(iv) Two triangles are said to be congruent if pairs of corresponding sides and the corresponding angles are equal.

Q.3. Which of the triangles in figure (i) and (ii) are congruent due to the SAS congruence condition. State the result in symbolic form.

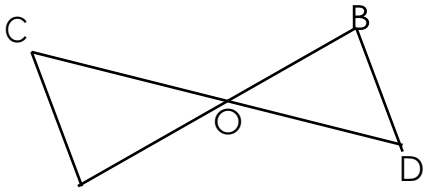
(i)



(ii)



Q.4. In adjacent figure line segment AB and CD bisect each other at O. Which of the following statements are true?



(i) Δ AOC ≅ Δ DOB

(ii) Δ AOC ≅ Δ BOD

(iii) Δ AOC ≅ Δ ODB

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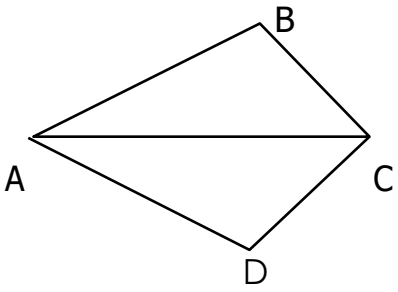
A

Q.5. In adjacent figure Δ ABC ≅ Δ ADC



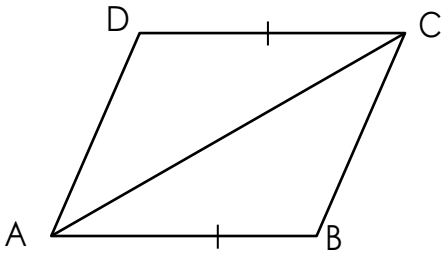
(i) ∠ABC = _____

(ii) ∠ACD = _____

(iii) BC = _____

(iv) ΔABC ≅ ΔADC due to the _____ congruence condition.

Q.6. In figure AB || CD and AB = DC



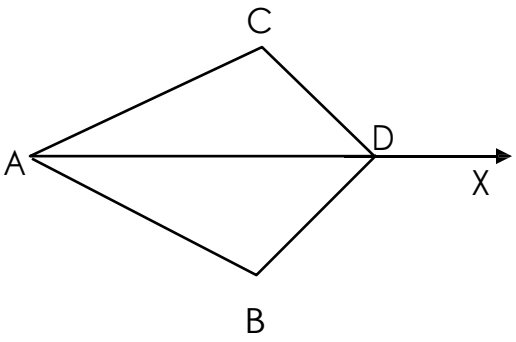
(i) Is Δ ACD ≅ Δ CAB _____

(ii) State the three pairs of matching parts used to answer *(i)*

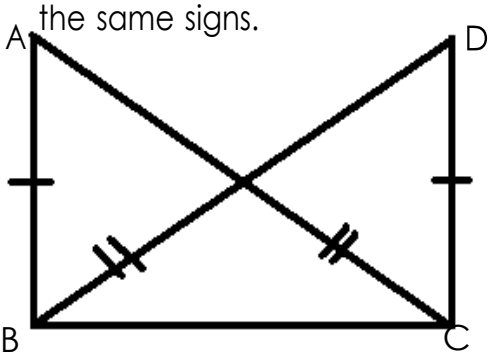
(iii) Which angle is equal to ∠CAD?

(iv) Is AD || BC?

Q.7. In figure AX bisects ∠ BAC as well as ∠ BDC. State the three facts needed to ensure that Δ ABD ≅ Δ ACD.



Q.8. In adjacent figure equal sides have been marked by the same signs.



(i) Is Δ ABC ≅ Δ DCB? Write the congruence condition used for it.

(ii) State the three pairs of matching parts used to prove Δ ABC ≅ Δ DCB