

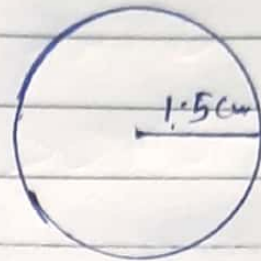
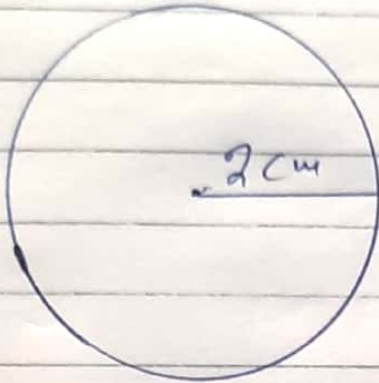
ਜਮਾਤ - ਸੱਤਵੀਂ

P-1

ਸਮਝਾਓ 7.1

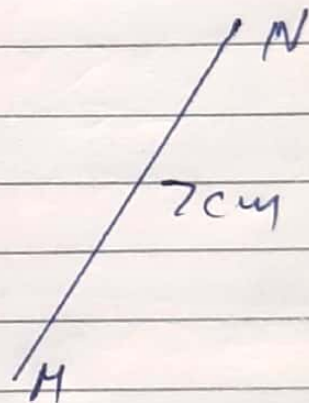
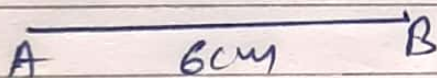
1. ਦਿੱਤੇ ਗਏ ਚਿੱਤਰਾਂ ਵਿੱਚੋਂ ਸਰਬੰਗਮਾਤਰ ਚਿੱਤਰ ਪਛਾਣੋ ਅਤੇ ਉਸਨੂੰ ਸਰਬੰਗਮਾਤਰ ਦੇ ਚਿੱਤਰ ਲਾਜ਼ਮੀ ਤੌਰ 'ਤੇ ਦਿਖਾਓ।

(i)



ਵਿਉਂਦੀ ਦਿੱਤੇ ਚੱਕਰਾਂ ਦੇ ਲਾਜ਼ਮੀ ਮਾਪ ਮੇਲਾਂ ਨਹੀਂ ਹਨ ਇਸਲਈ ਇਹ ਚੱਕਰ ਸਰਬੰਗਮਾਤਰ ਨਹੀਂ ਹਨ।

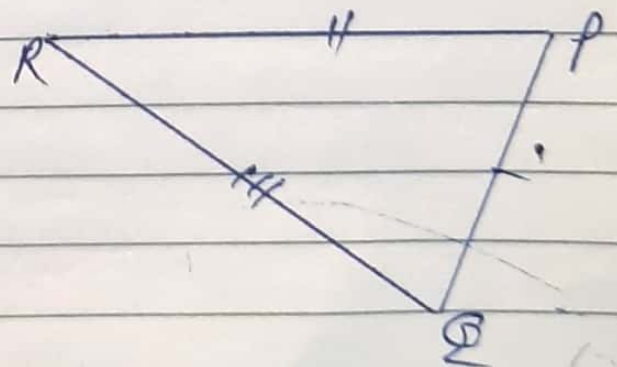
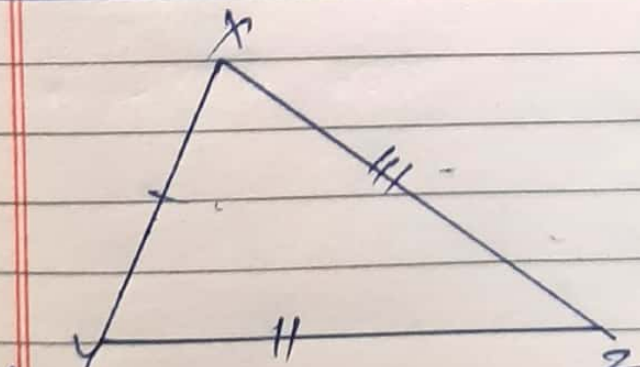
(ii)



$$\therefore AB \neq MN$$

$\therefore$ AB ਅਤੇ MN ਸਰਬੰਗਮਾਤਰ ਹੋਣਾ ਸੰਭਵ ਨਹੀਂ ਹੈ।

(iii)

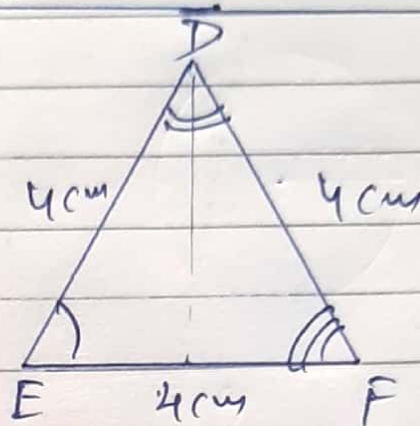
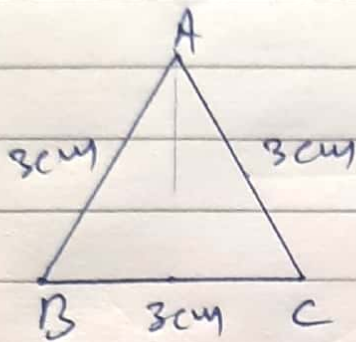


$$\therefore XY = PQ, \quad YZ = QR$$

$$XZ = PR$$

$$\therefore \triangle XYZ \cong \triangle PQR$$

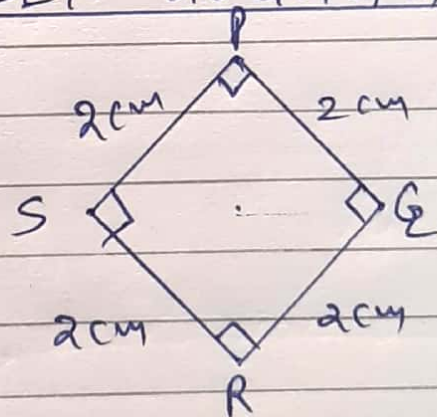
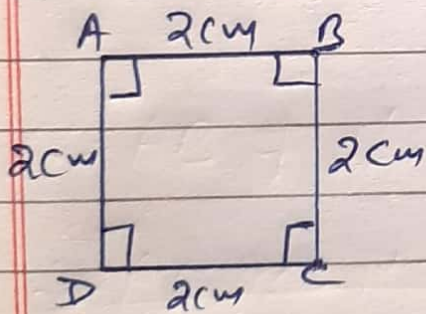
$\therefore$ SSS મર્યાદામર્યાદા મુજબ
 $\triangle XYZ \cong \triangle QPR$



$\therefore AB \neq DE$
 $BC \neq EF$
 $AC \neq FD$

$\therefore \triangle ABC$ અને $\triangle DEF$ મર્યાદામર્યાદા કરી નહીં.

(V)



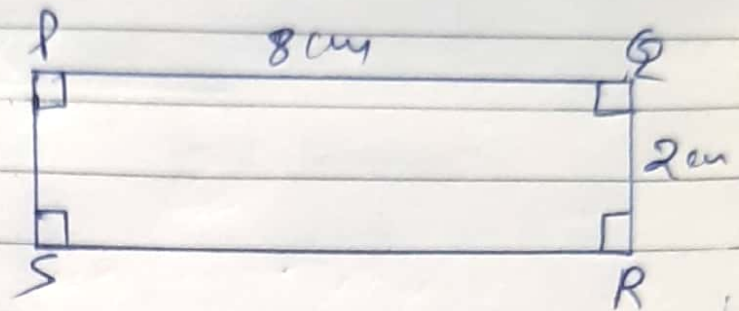
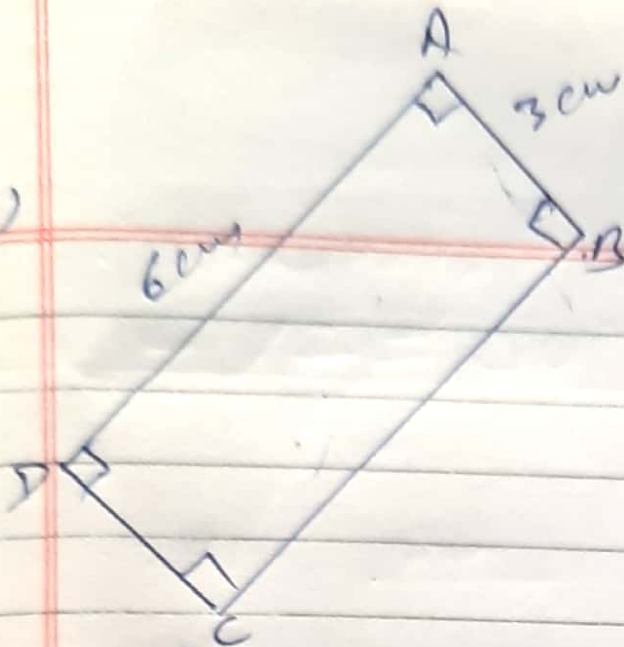
$AB = PQ = 2\text{cm}$
 $BC = QR = 2\text{cm}$
 $CD = RS = 2\text{cm}$
 $AD = PS = 2\text{cm}$

$\therefore \angle A = \angle P = 90^\circ$

$\therefore$ બંને દરમિયાન મર્યાદામર્યાદા કરી.

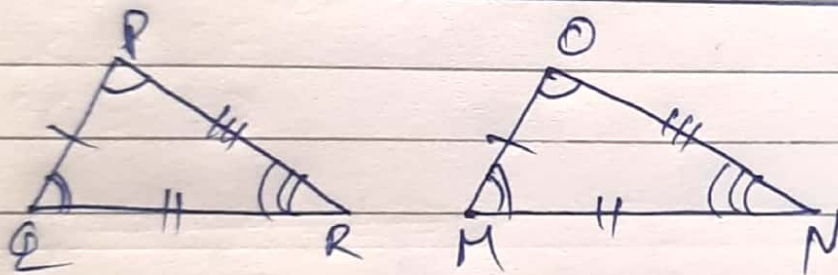
દરમિયાન $ABCD \cong$ દરમિયાન $PQRS$

(vi)



આપેલ ABCD માટે આપેલ PQRS મઠધંગમમ
હોય તો વિશિષ્ટ લેખો રીખો મેગડ કહેવાઈનાં
માટે કહેવાઈનાં દેખ દેખ તો।

2



$\therefore PQR \leftrightarrow OMN$ મજાત $\triangle PQR \cong \triangle OMN$

$$\therefore \angle P = \angle O$$

$$PQ = OM$$

(CPCT)

$$\angle Q = \angle M$$

$$QR = MN$$

(CPCT)

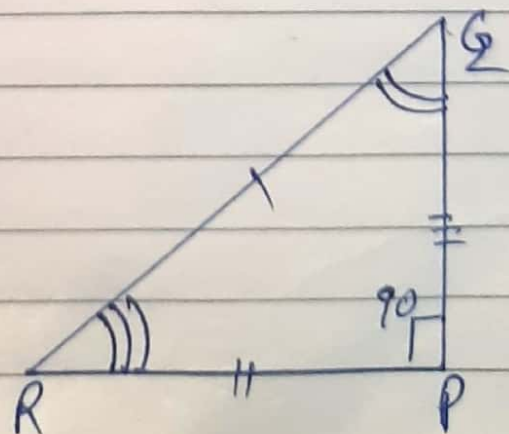
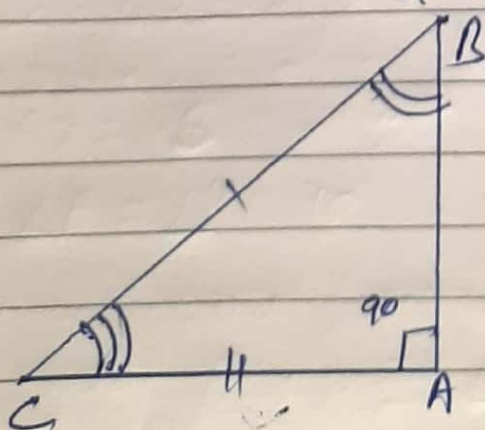
$$\angle R = \angle N$$

$$PR = ON$$

(CPCT)

3

મઠધંગમમ ત્રિકોણો કે જે કહેવાઈ



4. ਜੇਕਰ $\triangle ABC \cong \triangle ZXY$ ਤੇ $\triangle ZXY$ ਦੇ ਉਹ
ਭਾਗ ਦਿਖੋ ਜੋ $\triangle ABC$ ਦੇ ਹਿੱਸੇ ਭਾਗਾਂ ਦੇ ਮੇਲਣ ਤੇ:-

(i) $\angle B = \angle X$

(ii) $\angle A = \angle Z$

(iii) $AB = ZX$

(iv) $AC = ZY$

(5) ਬਹੁਧਿਕਤਾ ਪ੍ਰਮਾਣ

(a) (c) $\angle A = \angle X$ Ans

(b) (d) ਉਹ ਸਮਾਨ ਦੰਦਾਈ ਦੇ ਤੌਰ 'ਤੇ Ans

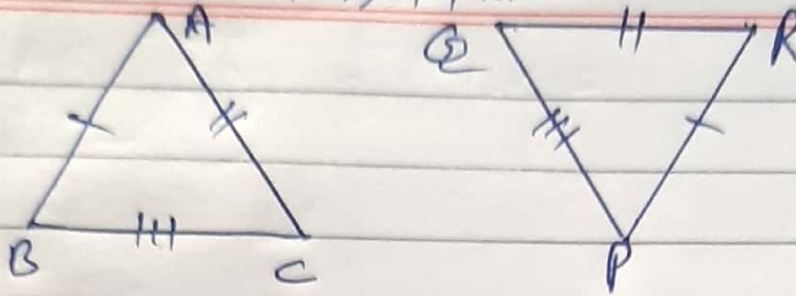
(c) (c) 5 cm Ans

6. ਦੋ ਸਮਕੋਣ ਤੇ ਸਮਾਨ ਮਾਪਾਂ ਦੇ ਸਮਕੋਣਾਂ ਦੇ ਸਮਕੋਣ
Ans ਮੇਰੇ

7. ਸਮਾਨ ਰੇਖਾਂ ਦੇ ਸਮਕੋਣਾਂ ਦੇ ਸਮਕੋਣਾਂ ਦੇ ਸਮਕੋਣਾਂ ਦੇ ਸਮਕੋਣਾਂ
ਉਹੀ ਸਮਕੋਣਾਂ ਹਨ।
Ans ਮੇਰੇ

I દ્વિતીય રી મરઘીગમમડા રી શાંકે નરે સેવર મરઘીગમમ ઝડ
ડાં મરઘીગમમ કિલ્લમ કિલ્લમ

(i)



$$BA = PQ$$

$$AC = RQ$$

$$CB = RP$$

$\therefore$ SSS મરઘીગમમડા મરઘીગમમ

$$\triangle BAC \cong \triangle PRQ$$

(ii)

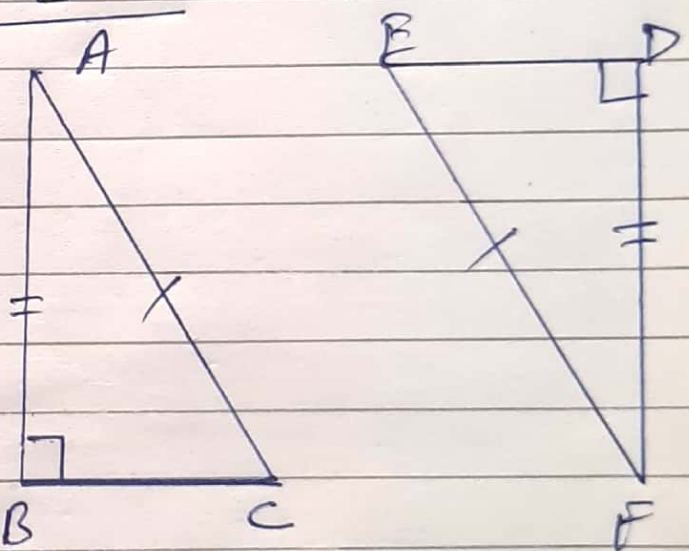
$$\angle B = \angle D = 90^\circ$$

$$AB = FD$$

$$AC = FE \quad (\text{કરકે})$$

$\therefore$ RHS મરઘીગમમડા મરઘીગમમ

$$\triangle ABC \cong \triangle FDE$$



(iii)

કિંડા ય

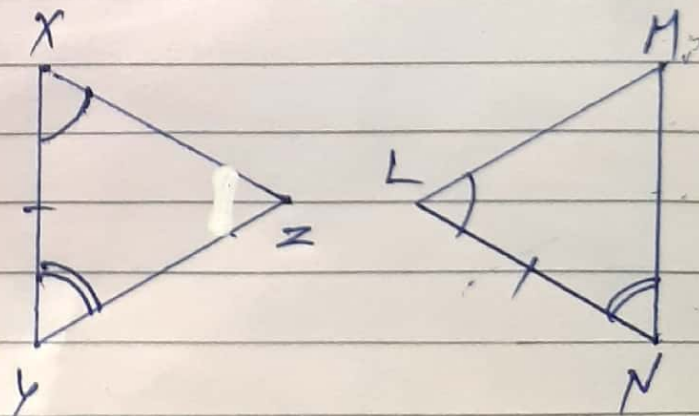
$$\angle X = \angle L$$

$$\angle Y = \angle N$$

$$XY = LN$$

$\therefore$ ASA મરઘીગમમડા મરઘીગમમ

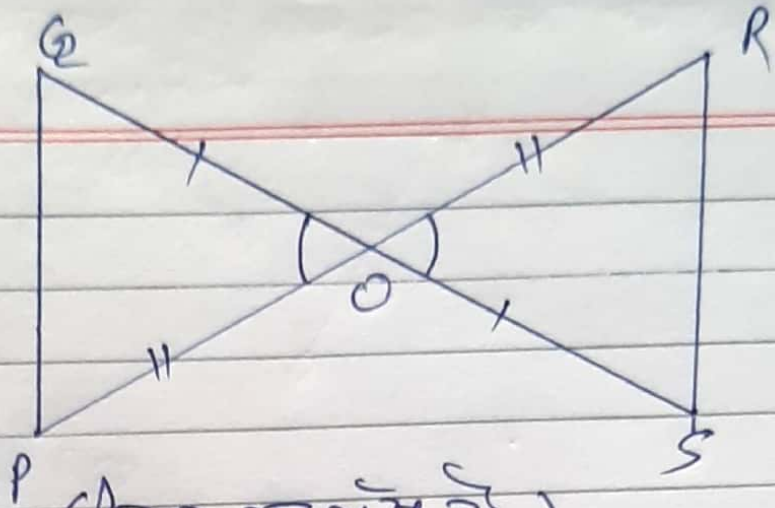
$$\triangle XYZ \cong \triangle LNM$$



(IV) દિટા ૪

$$OP = OR$$

$$OQ = OS$$



$$\angle POQ = \angle ROS \quad (\text{સિધ્ધ મળે છે})$$

$\therefore$ SAS મરેદગમમતા મુજબ

$$\triangle POQ \cong \triangle ROS$$

(V) દિટા ૫:-

$$\angle LMO = \angle MON$$

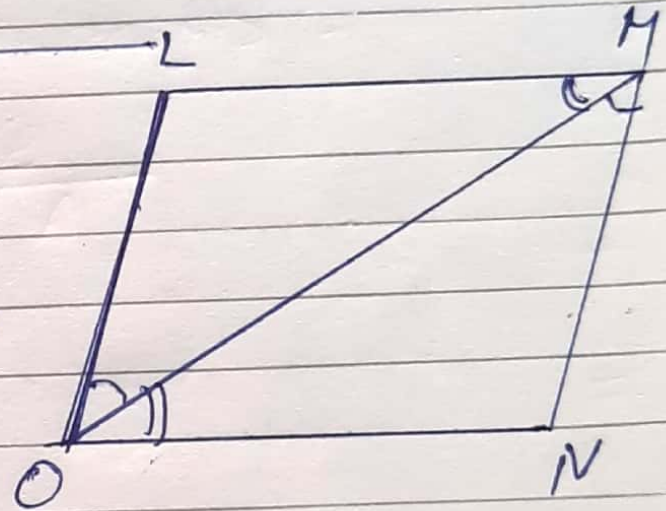
$$\angle LOM = \angle OMN$$

$$OM = OM$$

(માંદ્રી રૂબા)

$\therefore$ ASA મરેદગમમતા મુજબ

$$\triangle LOM \cong \triangle NMO$$



(VI) દિટા ૬)

$$AB = CD$$

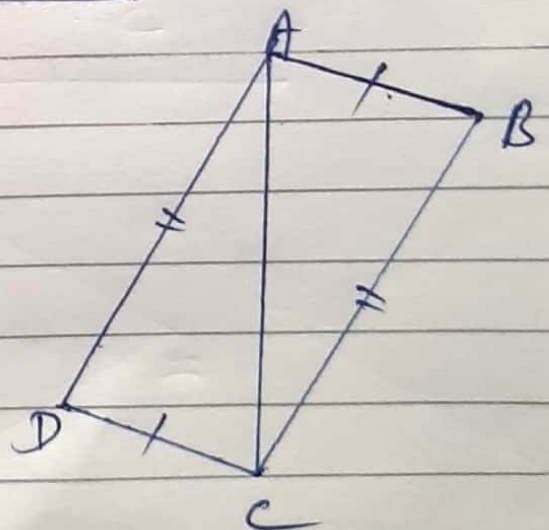
$$BC = AD$$

$$AC = AC$$

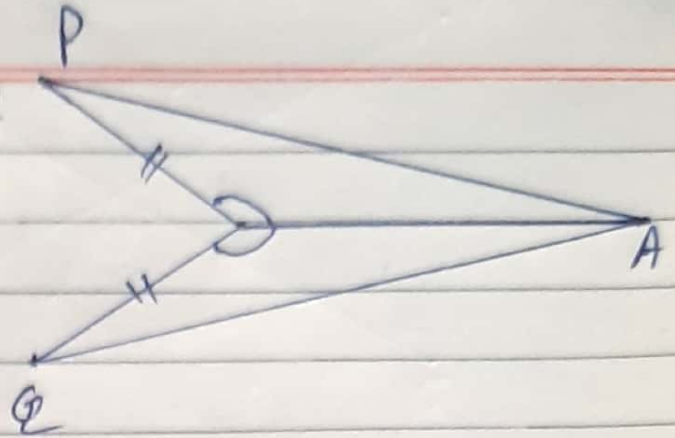
(માંદ્રી રૂબા)

$\therefore$ SSS મરેદગમમતા મુજબ

$$\triangle ABC \cong \triangle CDA$$



2. દિંડો દિલે $\triangle AMP \cong \triangle AMQ$
 એ દિવે પગાં કહી રહે
 રાગક દિવે



પગાં	રાગક
(i) $PM = QM$	દિંડો યે
(ii) $\angle PMA = \angle QMA$	દિંડો યે
(iii) $AM = AM$	મોજી ત્રણ
(iv) $\triangle AMP \cong \triangle AMQ$	SAS મરધંગમમતા કિલમ

3. દિંડો ગદે દિંડો દિલે $AB = AC$ માંડે
 $BD = DC$ યે ત્રિપ વોં વિ

(i) $\triangle ABD \cong \triangle ACD$

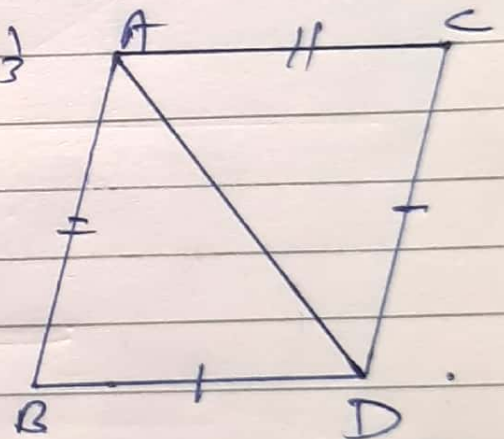
(ii) $\angle B = \angle C$

ઉક (i) $\triangle ABD$ માંડે $\triangle ACD$ દિલે
 $AB = AC$ (દિંડો યે)
 $BD = CD$ (દિંડો યે)
 $AD = AD$ મોજી ત્રણ

$\therefore$ SSS મરધંગમમતા મુજબ :-

$\triangle ABD \cong \triangle ACD$

(ii) $\angle B = \angle C$ (C.P.C.T)



4. દિતે કિતર દિકે $AC = CE$
 = મરે $BC = CD$ મિય વરે
 કિ $\triangle ACB \cong \triangle ECD$

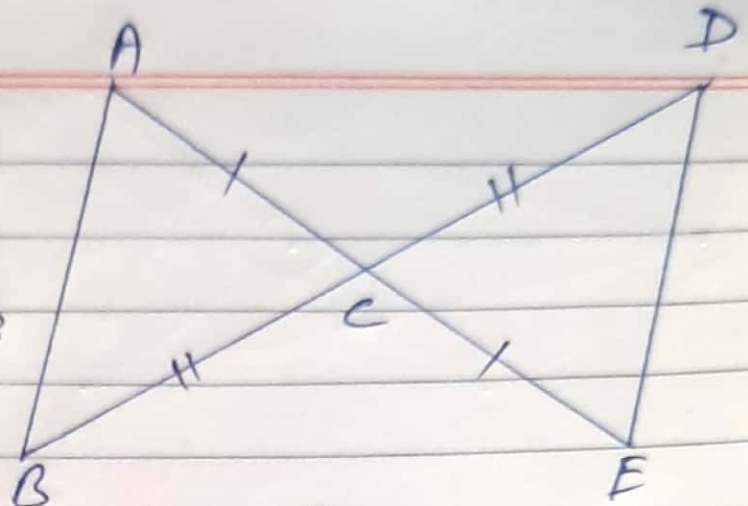
જે
 = $\triangle ACB$ મરે $\triangle ECD$ દિકે

$$AC = CE \text{ (દિતરે)}$$

$$BC = CD \text{ (દિતરે)}$$

$$\angle ACB = \angle ECD \text{ (વિષર મરે મિય વરે)}$$

$$\therefore \triangle ACB \cong \triangle ECD \text{ (SAS મરે મરે મરે મરે મરે)}$$

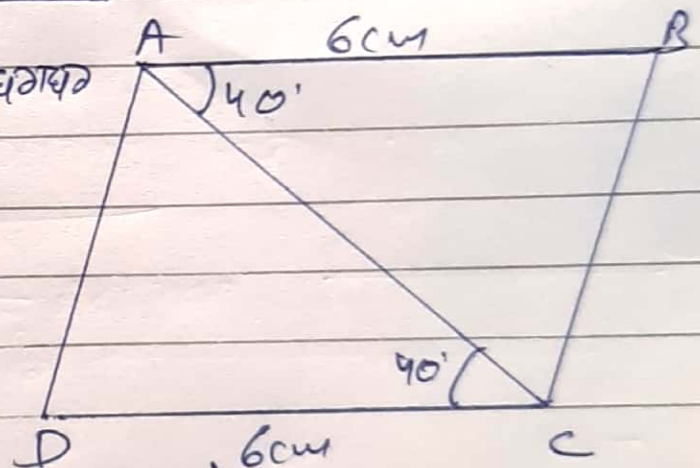


5 (i) $\triangle ADC$ મરે $\triangle CBA$ રે વરવર
 = જાગર મિય

$$AB = CD = 6\text{cm}$$

$$AC = AC \text{ (મોટી જુગ)}$$

$$\angle BAC = \angle DCA = 40^\circ$$



(ii) રી $\triangle ADC \cong \triangle CBA$? વરવર રે મે

$$\therefore AB = CD = 6\text{cm}, AC = AC \text{ (મોટી જુગ)}$$

$$\angle BAC = \angle DCA = 40^\circ$$

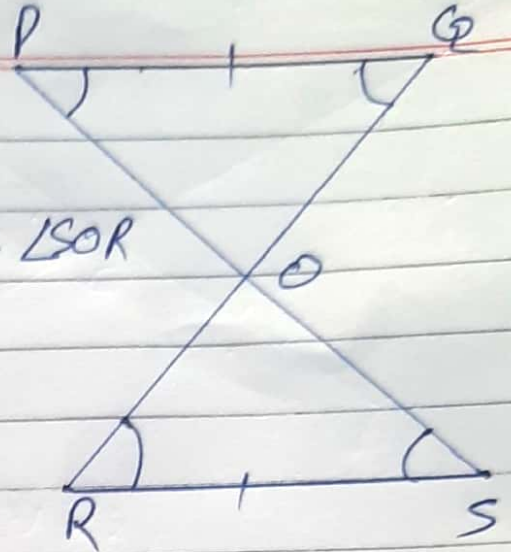
$$\therefore \text{SAS મરે મરે મરે મરે મરે}$$

$$\triangle ADC \cong \triangle CBA$$

(iii) રી $AD = CB$? વરવર રે મે

$$\text{જિ } AD = CB \text{ (C.P.C.T)}$$

6. રિડે ગદે જિંડો દિલે $PQ \parallel RS$
 માટે $PQ = RS$. મિય વર્ગે નિ
 (i) $\triangle POQ \cong \triangle SOR$ (ii) $\angle POQ = \angle SOR$



$\triangle POQ$ માટે $\triangle SOR$ દિલે

$PQ = RS$ (દિંડો ણે)

$\angle P = \angle S$ (દિવાંડો વેરુ)

$\angle Q = \angle R$ (દિવાંડો વેરુ)

$\therefore$ ASA મરધેગમમડા મનુમાર

$\triangle POQ \cong \triangle SOR$

$\angle POQ = \angle SOR$ મિયર મરુમેય વેરુ

7. રિડે ગદે જિંડો દિલે ડુના AD
 રા મેય દિલે M ણે માટે $\angle A = \angle D$
 મિય વર્ગે નિ $\triangle AMB \cong \triangle DMC$

$AM = DM$ $\because$ D, AD રા મેય
 દિલે ણે

$\triangle AMB$ માટે $\triangle DMC$ દિલે

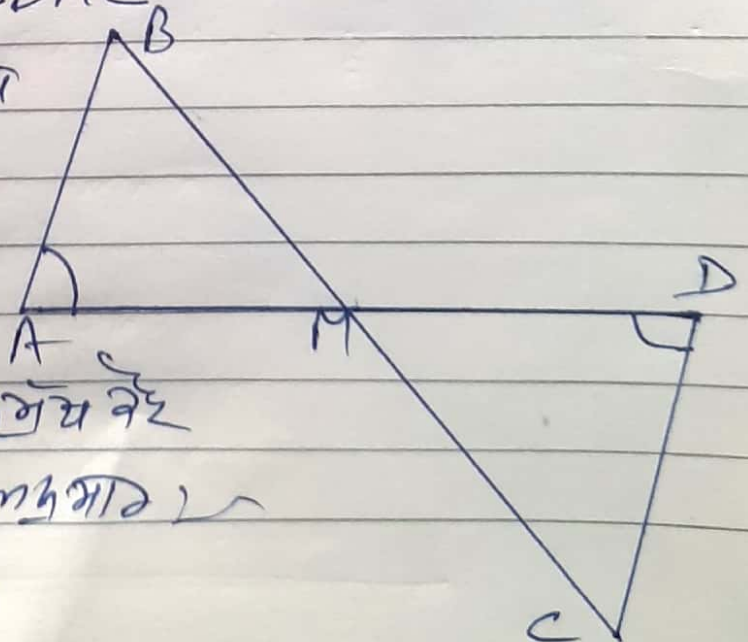
$AM = DM$

$\angle A = \angle D$

$\angle AMB = \angle CMD$ મિયર મરુમેય વેરુ

$\therefore$ ASA મરધેગમમડા મનુમાર

$\triangle AMB \cong \triangle DMC$



8. દિੱટો દિલે $SP \perp PQ$, $RQ \perp PQ$ મલે $PR = QS$

(i) $\triangle PQR$ મલે $\triangle SPQ$ લે ઘલઘલ ઝલગ દિલે

(ii) લિલે લો લે $\triangle PQR \cong \triangle QRS$

ઝલ $\triangle PQR$ મલે $\triangle SPQ$ લે

$$PR = QS$$

$$PQ = PQ \text{ (લિલે લો ઝલગ)}$$

$$\angle PQR = \angle QPS = 90^\circ$$

$$\angle PQR = \angle QPS = 90^\circ$$

$\therefore$ RHS મલે લલમલમલ મલે લલમલમલ

$$\triangle PQR \cong \triangle QRS$$

9. દિੱટો દિલે $AB \perp CR$, $AC \perp BP$ મલે $BC = CB$
લિલે લો લે

(i) $\triangle CAB \cong \triangle BAC$ (ii) $\angle CAB = \angle BAC$

$\triangle CAB$ મલે $\triangle BAC$ લે

$$CA = CA \text{ (લિલે લો ઝલગ)}$$

$$\angle ACB = \angle ABC = 90^\circ$$

$$CB = CB \text{ (લિલે લો ઝલગ)}$$

RHS મલે લલમલમલમલ મલે લલમલમલ

$$\triangle CAB \cong \triangle BAC$$

$$\angle CAB = \angle BAC$$

(CPCT)

