



MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

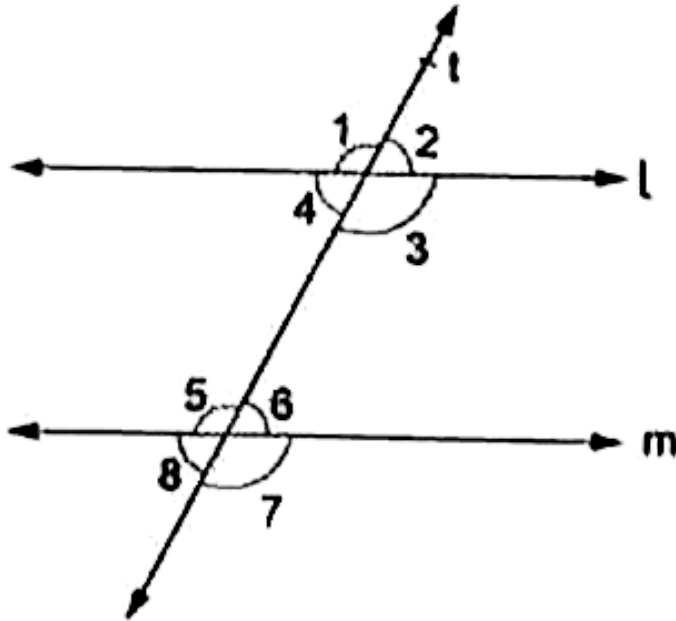
PROPERTIES OF PARALLEL LINE

Example

1. In the given figure l and m are parallel lines and t is a transversal such that $\angle 1 = 135^\circ$

find the measure of each one of the angels

$\angle 2$, $\angle 3$, $\angle 4$, $\angle 5$, $\angle 6$, $\angle 7$. AND $\angle 8$



Watch Video Solution

2. prove that two lines m and n be parallel to the same given line are parallel to each other.



[Watch Video Solution](#)

3. prove that two lines in a plane which are perpendicular to the same given line are parallel to each other.

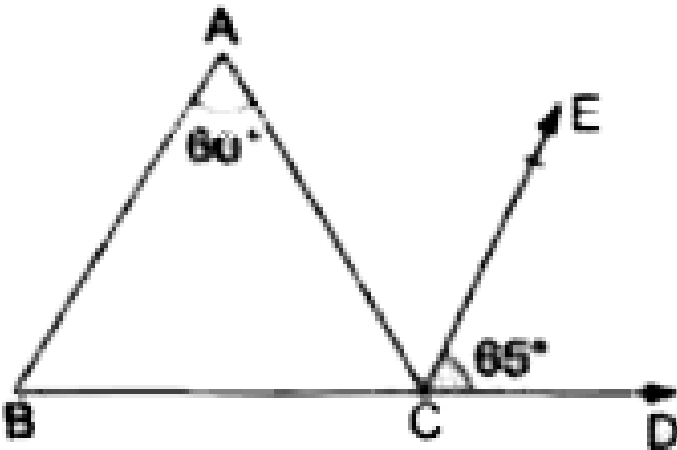


[Watch Video Solution](#)

4. In the adjoining figure it is given that and

$\angle A = 60^\circ$, $CE \parallel BA$ and $\angle ECD = 65^\circ$

Find $\angle ACB$



A. $\angle ACB = 55^\circ$

B. $\angle ACB = 60^\circ$

C. $\angle ACB = 50^\circ$

D. $ANGLE = 65^\circ$

Answer: A

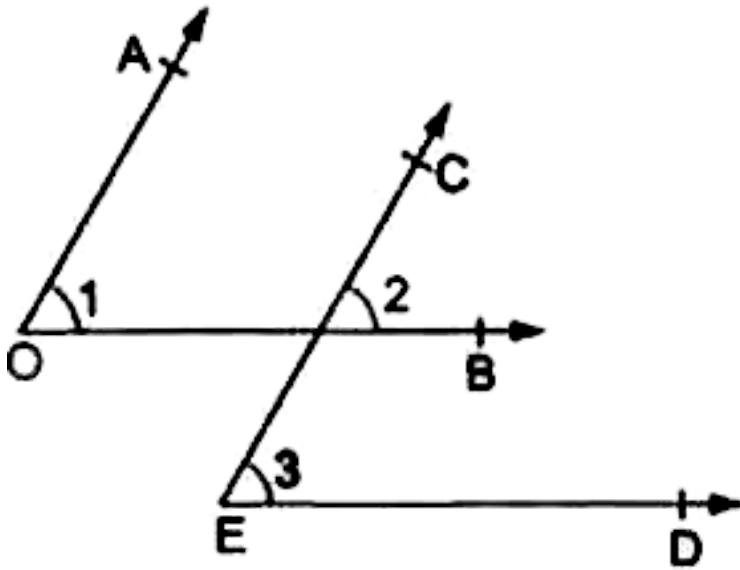


Watch Video Solution

5. In the adjoining Figure it is given that

$OA \parallel EC$ and $OB \parallel ED$ prove that

$$\angle AOB = \angle CED$$

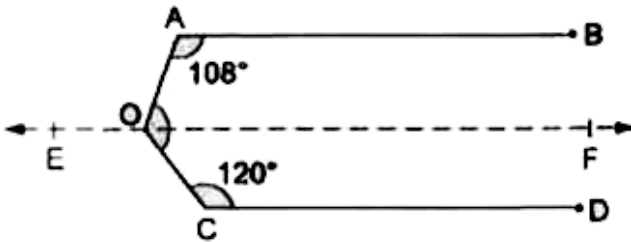
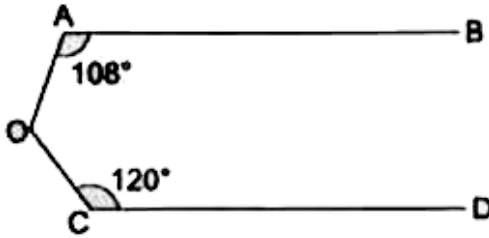


[Watch Video Solution](#)

6. In the adjoining figure it is given that

$AB \parallel CD$, $\angle BOC = 108^\circ$ and

$\angle OCA = 120^\circ$ Find $\angle AOC$,



- A. $\angle AOC = 140^\circ$
- B. $\angle AOC = 135^\circ$
- C. $\angle AOC = 130^\circ$
- D. $\angle AOC = 132^\circ$

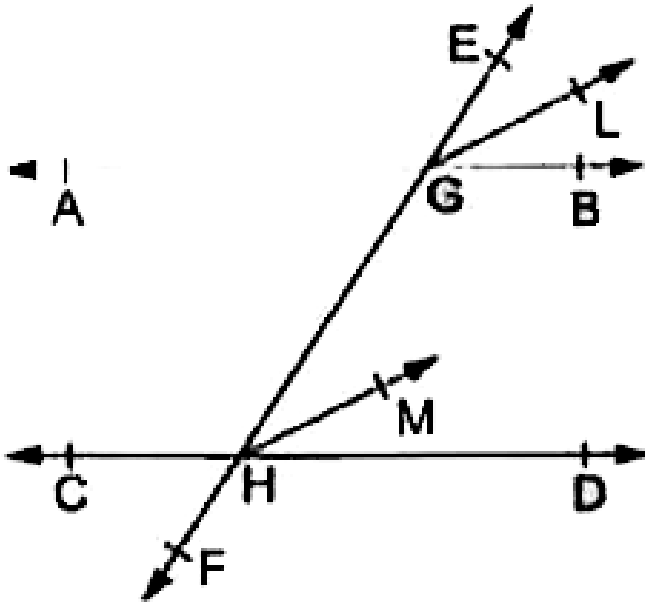
Answer: *D*



Watch Video Solution

7. In the adjoining figure $AB \parallel CD$ and EF is a transversal cutting them at G and H respectively. If GL and HM are the bisectors of the corresponding angles EGB and EHD

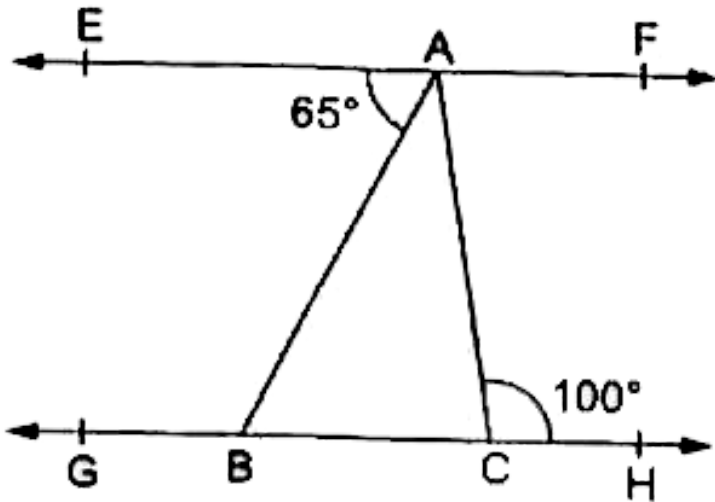
respectively show that $GL \parallel HM$.



[Watch Video Solution](#)

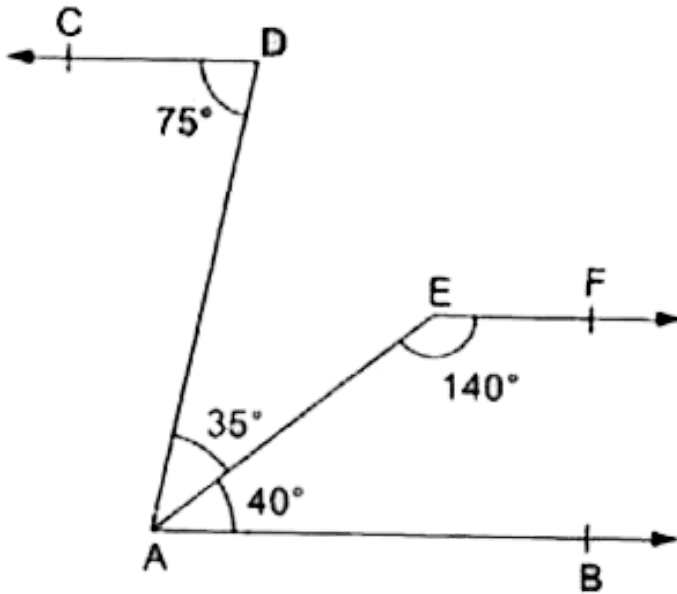
8. In the given figure $EF \parallel GH$,
 $\angle GLB = 65^\circ$ and $\angle ACH = 100^\circ$

determine (1) $\angle abc$, (2) $\angle acb$, (3) $\angle bac$,
(4) $\angle eaf$,



[Watch Video Solution](#)

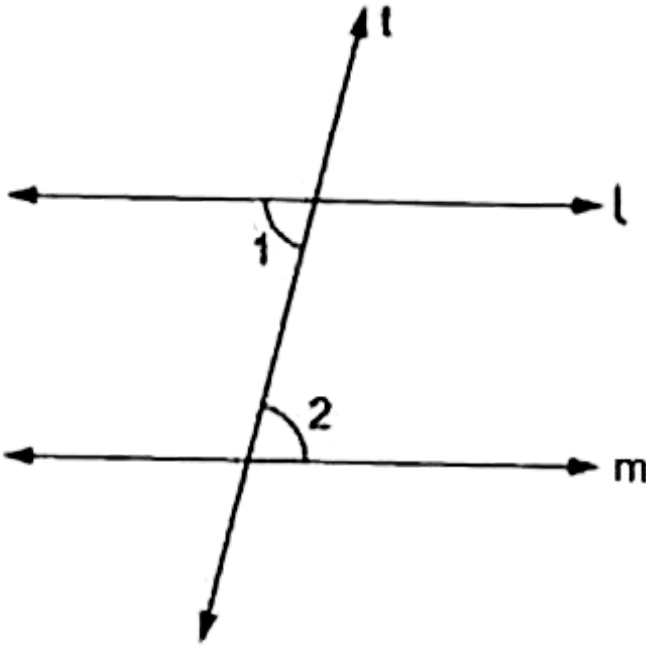
9. In the given figure show that $CD \parallel EF$



[Watch Video Solution](#)

10. In the given figure two lines l and m are intersected by a transversal t such that

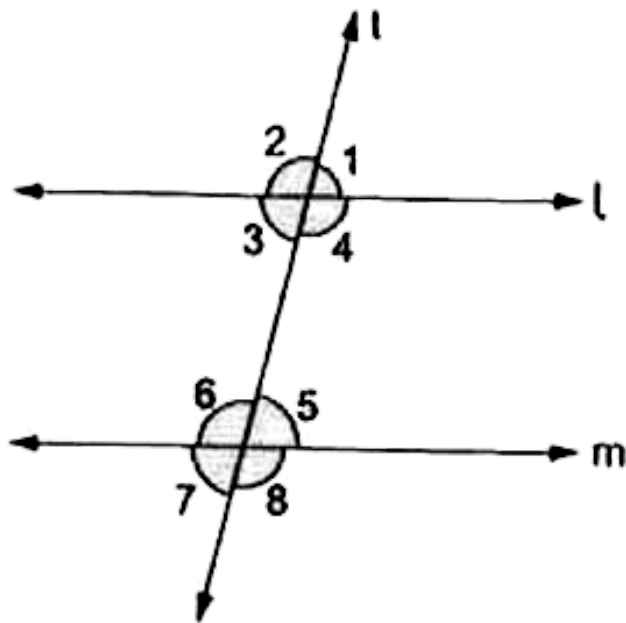
$\angle 1 = \angle 2$ is $l \parallel m$? give reasons



Watch Video Solution

Exercise 14

1. In the given figure $l \parallel m$ and T is a transversal if $\angle = 70^\circ$ find the measure of the angles $\angle 1$, $\angle 3$, $\angle 4$ and $\angle 8$

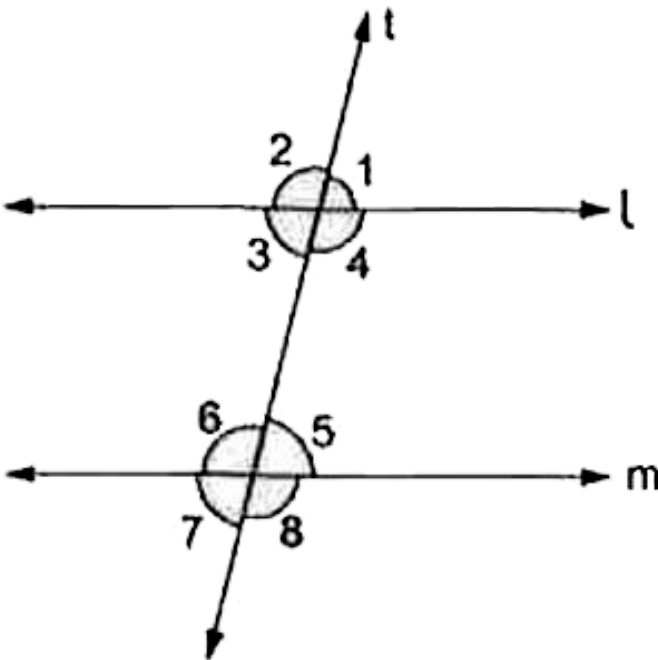


Watch Video Solution

2. In the given figure

$l \parallel m$ and transversal t if angle 1 and angle 2 are in the ratio 5:7

, find the measure of each of the \angle s Angle 1, angle 2, angle 3 and angle 8`



Watch Video Solution

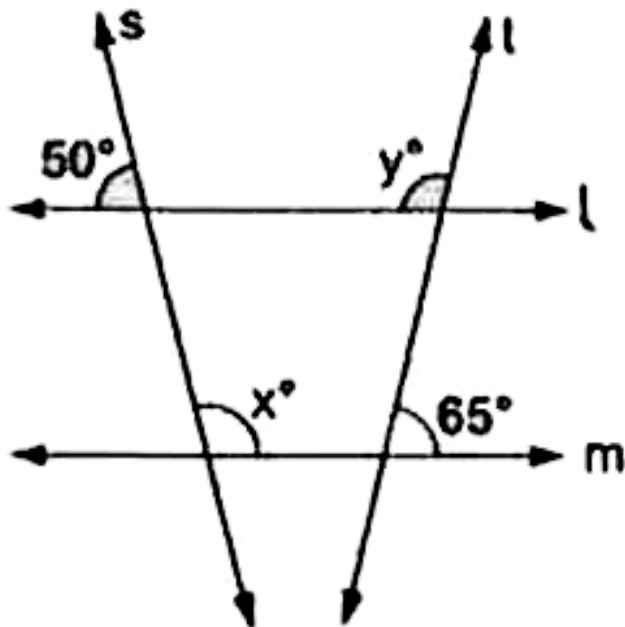
3. Two parallel lines l and m are cut by a transversal t . If the interior angles of the same side of t are $(2x - 8)^\circ$ and $(3x - 7)^\circ$, find the measure of each of these angles.



[Watch Video Solution](#)

4. In the given figure $l \parallel m$ and be transversals such that is not parallel to T find the values of

x and y .



A. $x = 130^\circ, y = 115^\circ$

B. $x = 115^\circ, y = 130^\circ$

C. $x = 120^\circ, y = 125^\circ$

D. $x = 145^\circ, y = 150^\circ$

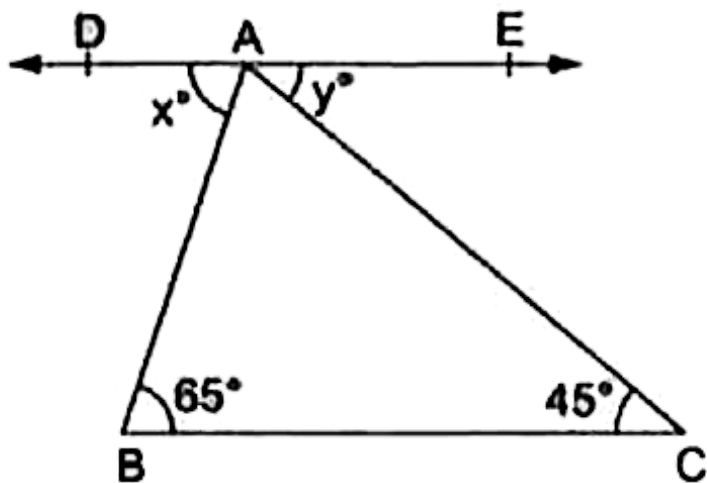
Answer: A



Watch Video Solution

5. In the given figure $\angle B = 65^\circ$ and $\angle C = 45^\circ$ in $\triangle ABC$ and $DAE \parallel BC$ if $\angle DAB = x^\circ$ and $\angle EAC = y^\circ$ find the

values x and y .



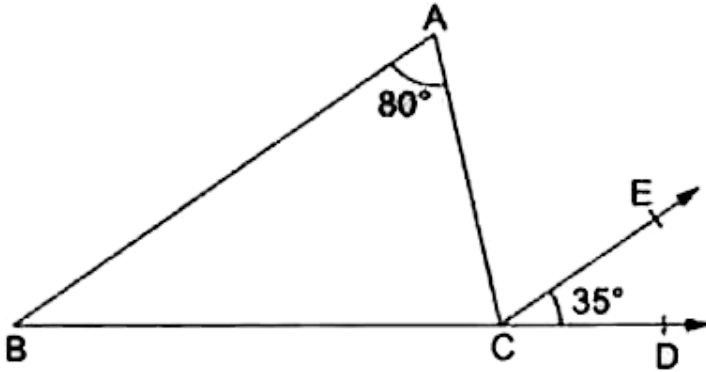
Watch Video Solution

6. In the adjoining figure it is given that

$CE \parallel BA$, $\angle E = 80^\circ$ and

$\angle ECD = 35^\circ$ find (1) $\angle ACE$, (2)

ANGLEACB , (3) ANGLEABC



Watch Video Solution

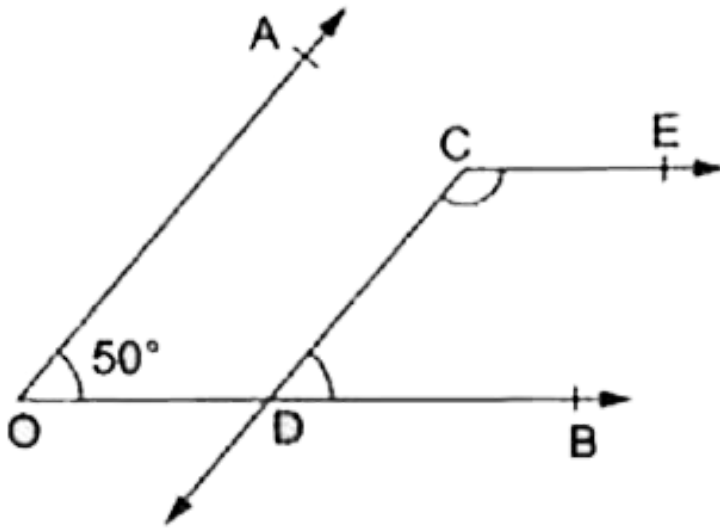
7. in the adjoining figure it is being given that

$AO \parallel CD, OB \parallel CE$

and

$\angle A = 50^\circ$ find the measure of $\angle C$

ANGLEECD`



Watch Video Solution

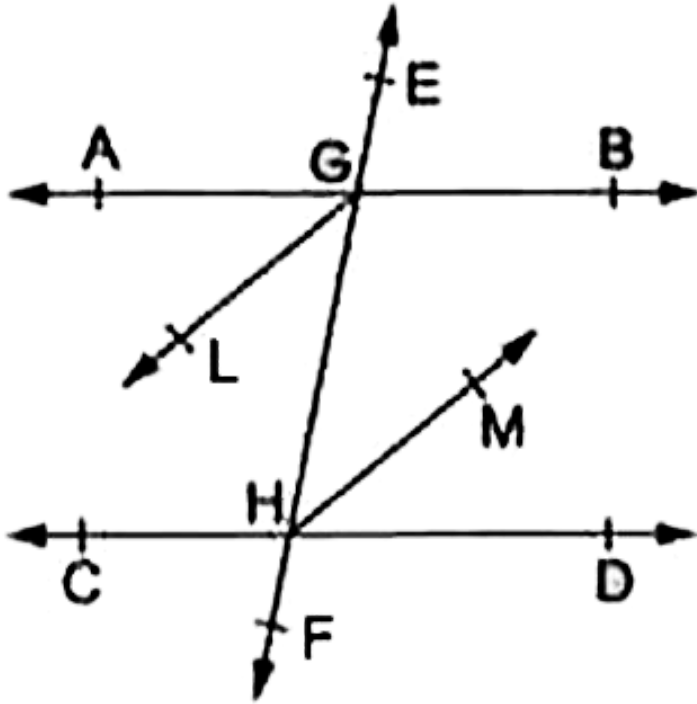
8. In the adjoining figure it is given that $AB \parallel CD$, $\angle ABO = 50^\circ$ and $\angle COD = 40^\circ$ find the measure of $\angle BOD$



Watch Video Solution

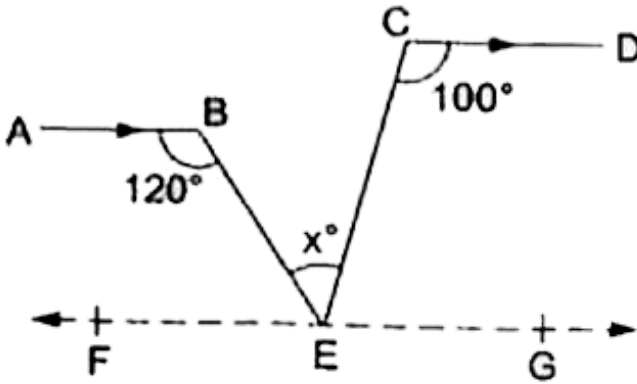
9. In the given figure $AB \parallel CD$ and a transversal EF cuts them at G and H respectively. If GL and HM are the bisectors of the alternate angles $\angle EAGH$ and $\angle GHD$ respectively prove that $GL \parallel HM$

$GL \parallel HM$



[Watch Video Solution](#)

10. In the given figure $AB \parallel CD$,
 $\angle ABE = 120^\circ$, $\angle ECD = 100^\circ$ and
 $\angle BEC = X^\circ$. find the value of x .



 [Watch Video Solution](#)

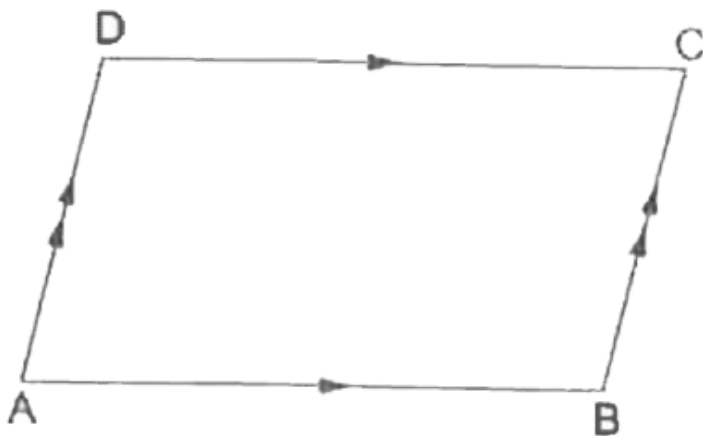
11. In the given figure $ABCD$ is, $ABCD$ is a quadrilateral in which $AB \parallel DC$ and

$AD \parallel BC$

prove

that

$\angle ADC = \angle ABC$.



Watch Video Solution

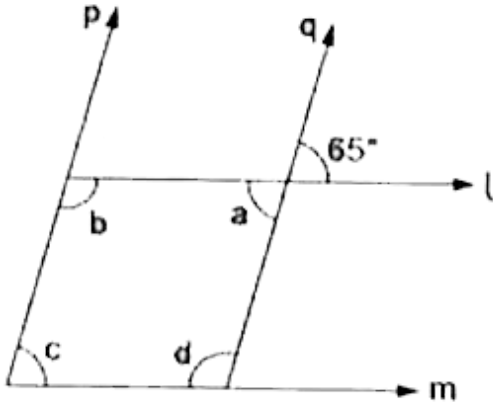
12. In the given figure $L \parallel M$ and $P \parallel Q$

find the measure of each of the angles

$\angle A$, $\angle B$, $\angle C$

and

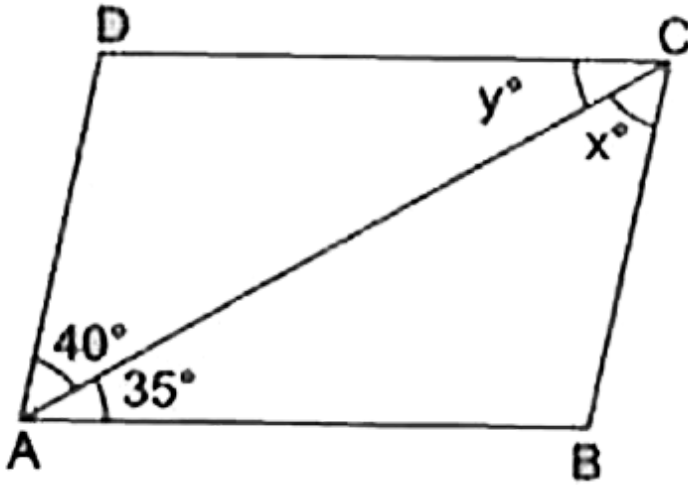
ANGLED.



Watch Video Solution

13. In the given figure $AB \parallel DC$ and $AD \parallel BC$ and AC is a diagonal if $\angle BAC = 35^\circ$ and $\angle CAD = 40^\circ$, $\angle ACB = X^\circ$ and $\angle ACD = Y^\circ$ find the values of x

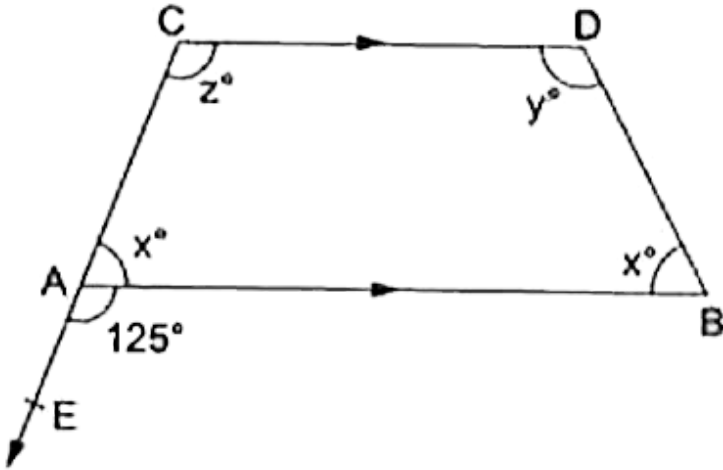
and y .



Watch Video Solution

14. In the given figure $AB \parallel CD$ and CA has been produced to E so that $\angle BAE = 125^\circ$ if $\angle BAC = X^\circ$, $\angle ABD = X^\circ$, $\angle BDC = Y^\circ$ and $\angle ACD =$

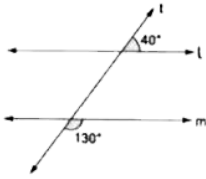
Z° and find the values of x, y, z .



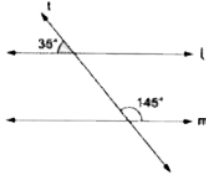
[Watch Video Solution](#)

15. In each of the given figures two lines L and M are cut by a transversal T find whether

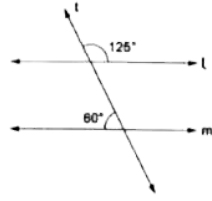
$L \parallel M$.



(i)



(ii)



(iii)



Watch Video Solution