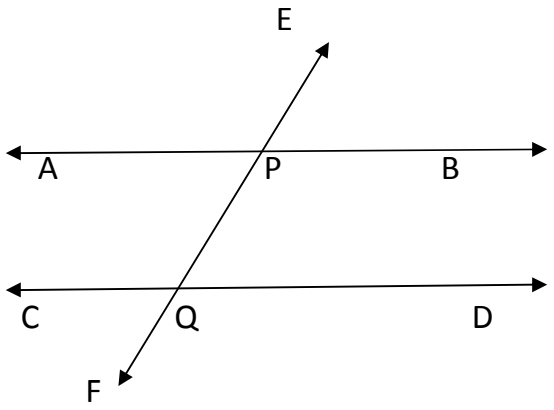
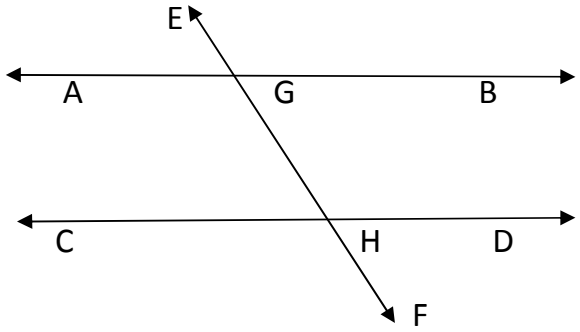
SUBJECT: MATHEMATICS
CLASS: VIII
CHAPTER – 10 (PARALLEL LINES)
WORKSHEET-1(BASIC)

VERY SHORT ANSWER TYPE QUESTIONS:

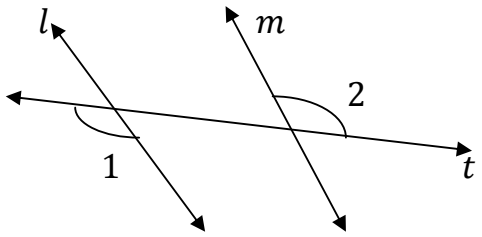
Q1. In the figure line AB ‖CD and line EF is the transversal, if ∠EPB=50° find ∠PQD.



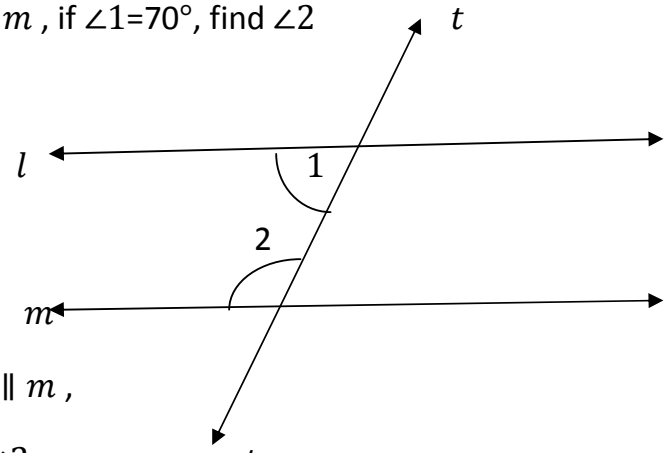
Q2.In the figure AB‖CD, if ∠BGH=70° find ∠GHC



Q3.In the figure $l \parallel m$, if ∠1=110°, find ∠2

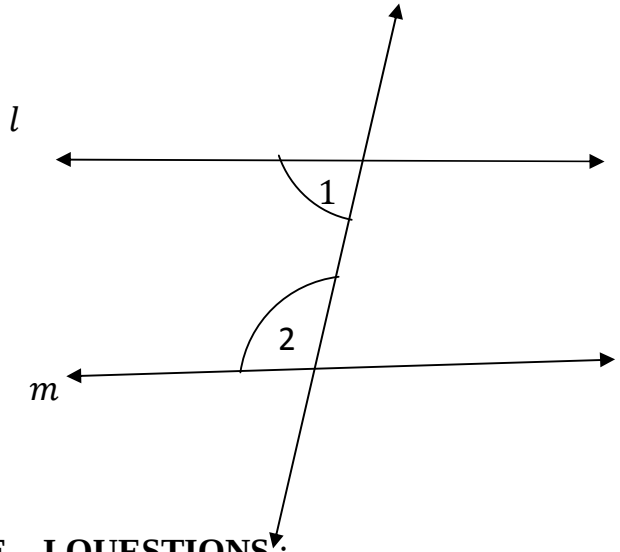


Q4. In the figure $l \parallel m$, if $\angle 1 = 70°$, find $\angle 2$



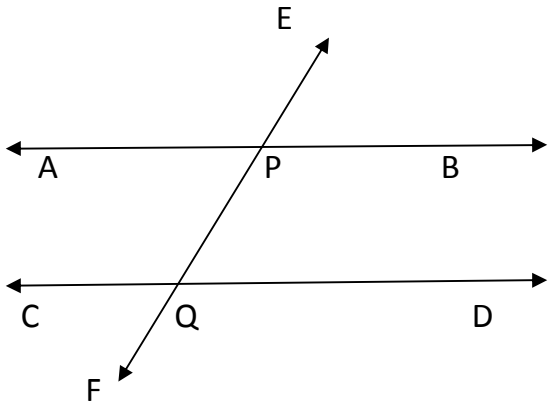
Q5. In the figure $l \parallel m$,

Find $\angle 1 + \angle 2$

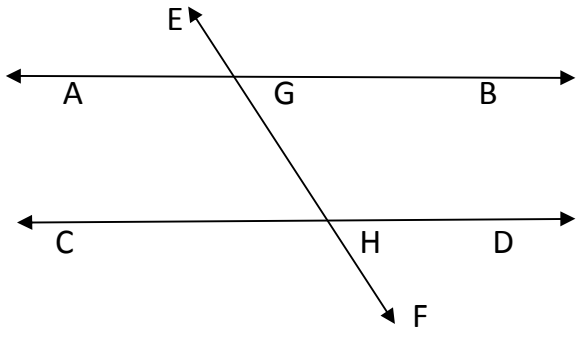


SHORT ANSWER TYPE – I QUESTIONS:

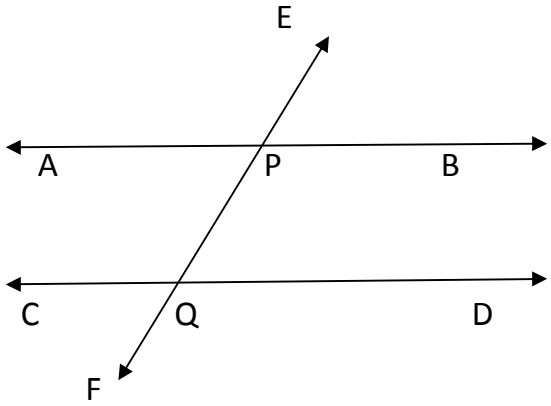
Q6.In the figure AB‖CD, If$\angle EPB = 25°$ find $\angle APQ$ and $\angle PQD$



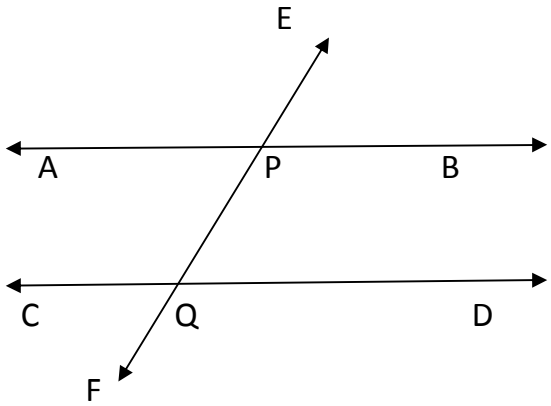
Q7. .In the figure AB‖CD,if ∠EGB=120° find ∠ BGH and ∠GHC



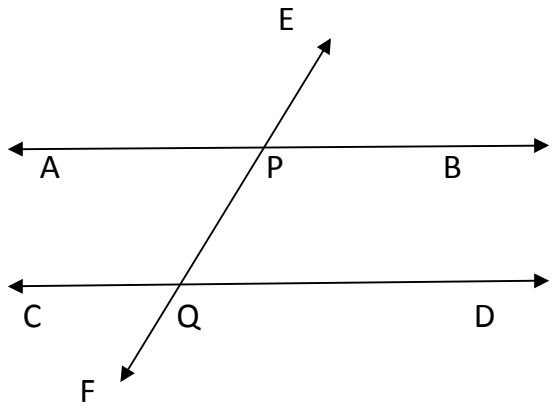
Q8. In the figure AB‖CD, If∠EPA=110° find ∠BPQ and ∠PQD



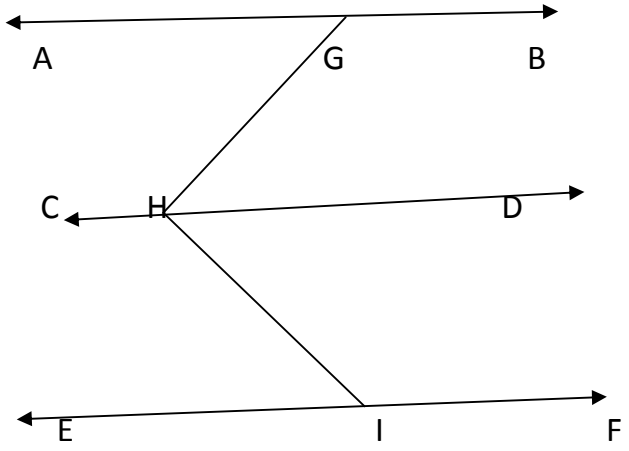
Q9. In the figure AB‖CD, If∠BPQ=110° find ∠CQF and ∠DQF



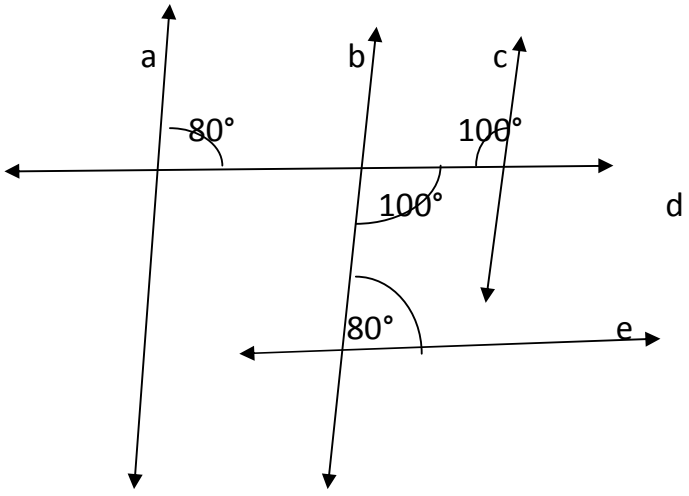
Q10. In the figure AB‖CD, If∠BPQ = (4x + 2)° and ∠PQD = (5x – 2)° find the value of x.



Q11.In the figure AB‖CD‖EF,if ∠AGH =30° and ∠HIE =25°find ∠CHG and ∠DHI



Q12.Based on the diagram given below, which of the lines are parallel ?



SHORT ANSWER TYPE – II QUESTIONS:

Q13.Draw a line segment AB=6cm and divide it internally into six parts.

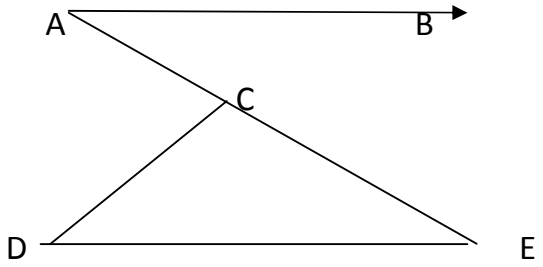
Q14.Draw a line segment of length 7.7 cm and divide it internally in the ratio3:4.

Q15.Draw a line segment AB of length 6cm and find a point P on it such that

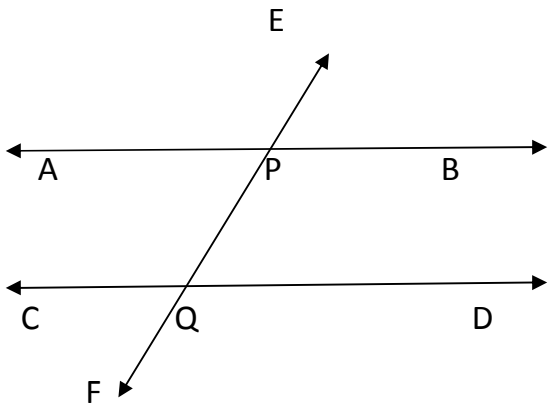
AP :PB =1:3.Measure AP and PB.

Q16. Two parallel lines are intersected by a transversal. If measure of one of the angle so formed is73^0, then find the measure of its co interior angle, corresponding angle and alternate interior angle.

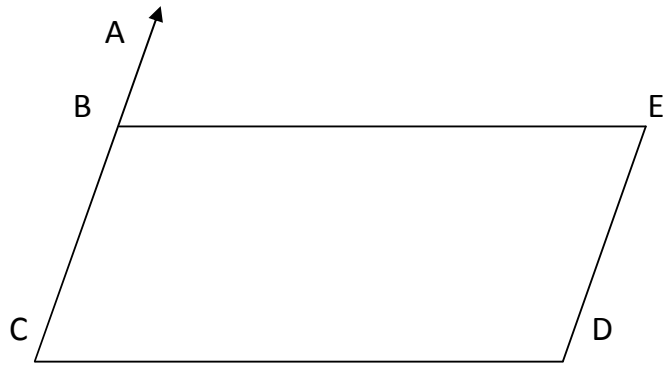
Q17.In the given figure, if AB‖DE, ∠BAC=35° and ∠CDE=53°, find ∠DCE.



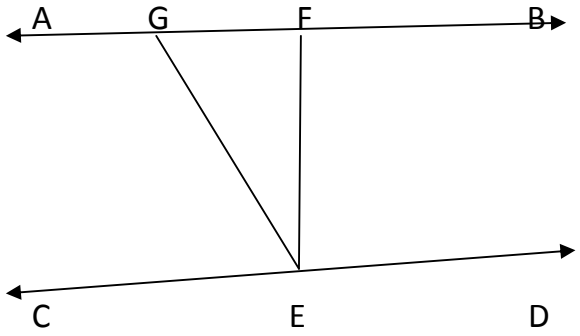
Q18.In the figure if ∠ EPB=(7X -20)°and ∠ PQD=(3X +20)°,for what value of x will the lines AB and CD be parallel to each other.



Q19. If AC ‖ ED , BE ‖ CD and $\angle BCD = 75°$, find ∠CDE ,∠DEB and ∠ABE in the given figure.



Q20.In the figure if AB‖ CD,FE ⊥ CD and $\angle GED$ =126°,find $\angle AGE, \angle GEF$ and $\angle FGE$.



LONG ANSWER TYPE QUESTIONS:

Q21.Draw line segment AB=8cm.Without constructing parallel lines at A and B, find three points P,Q and R on AB such that AP =PQ =QR = RB.

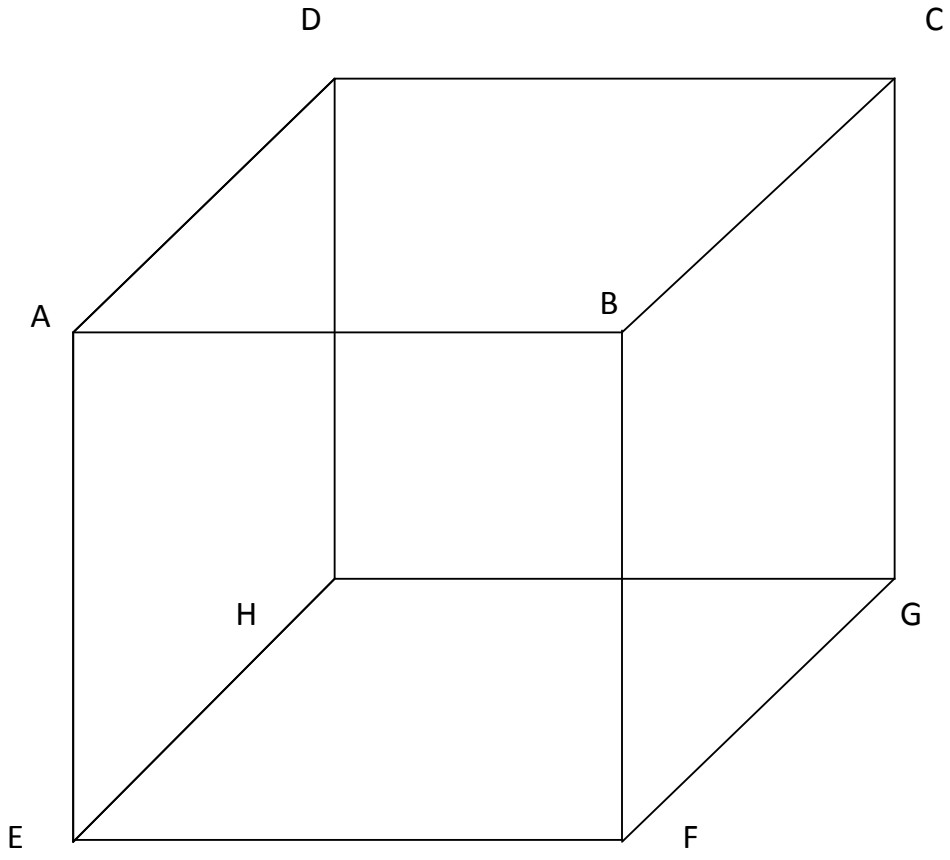
Q22.In the figure , name the edges of the adjoining cube which are parallel to

i)AB

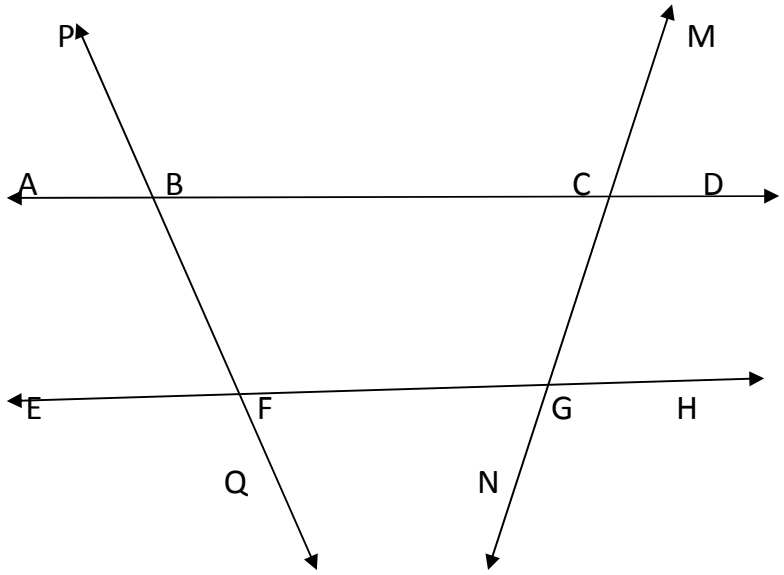
ii)EF

iii)What is the point of intersection of AE and AB ?

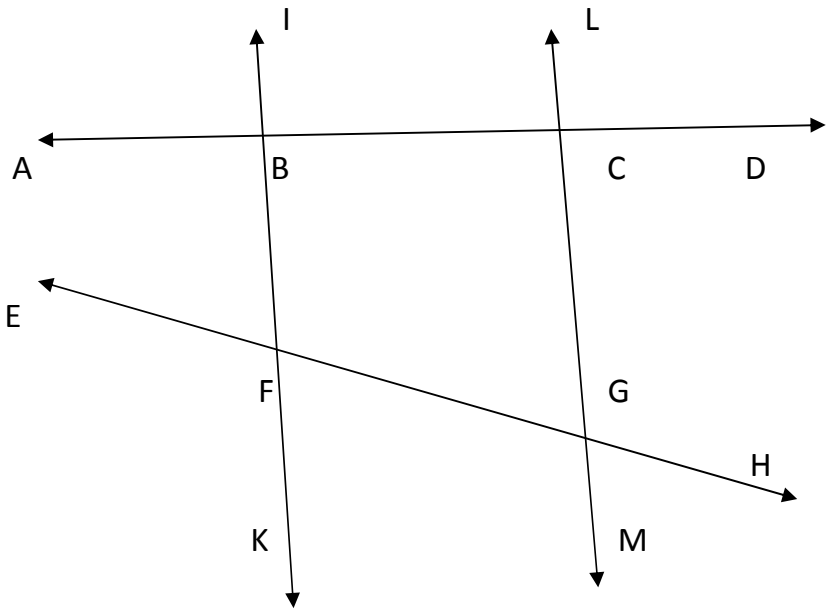
iv)Are edges EF and BC parallel ?



Q23.In the figure AD ‖ EH,$\angle PBA = 40°$ and $\angle MCB = 110°$.Find $\angle CGF, \angle BFG, \angle CGH$ and$\angle BCG$.

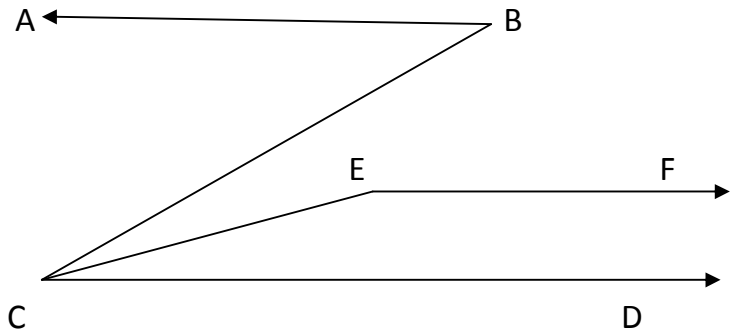


Q24.In the given figure IK ‖ LM,$\angle BCG = 130°$ and $\angle FGM = 50°$, find $\angle LCD$,$\angle CGH$, $\angle BFG$ and $\angle IBC$.



Q25.In the figure if $\angle ABC = 40°, \angle BCE = \angle ECD = 20°$ and $\angle CEF = 160°$show that i) AB ‖ CD ii)CD ‖ EF iii)AB‖ EF.

Justify your answer.



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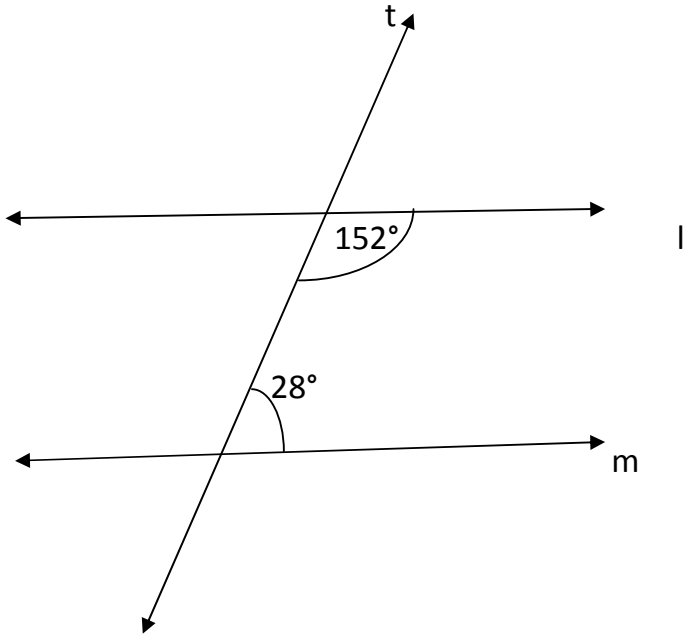
SUBJECT: MATHEMATICS
CLASS: VIII
CHAPTER – 10 (PARALLEL LINES)
WORKSHEET-2 (STANDRED)

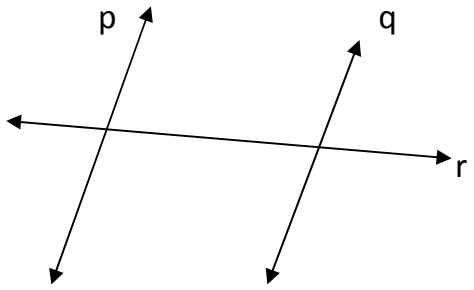
VERY SHORT ANSWER TYPE QUESTIONS:

Q1.In the figure which of the two lines are parallel ?

I)

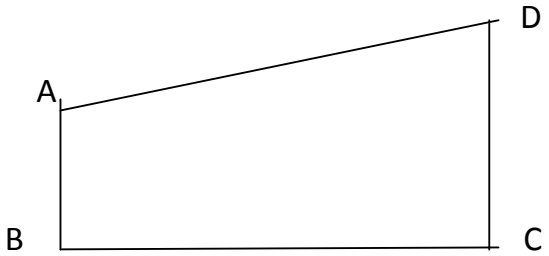


ii)

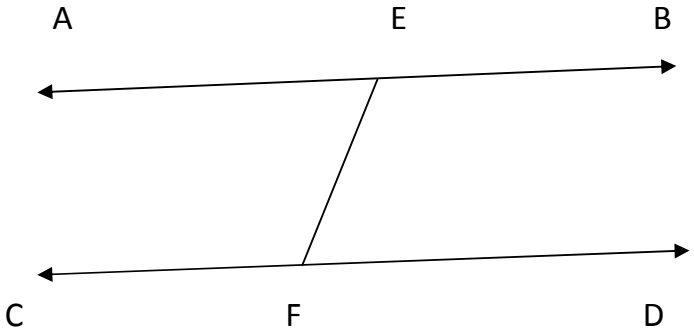


Q2. Two lines are parallel , One of the co-interior angle is one fifth of the other. Find the angles.

Q3.In the quadrilateral ABCD $\angle ABC = \angle DCB = 90°$.Is AD‖BC, Justify your answer.



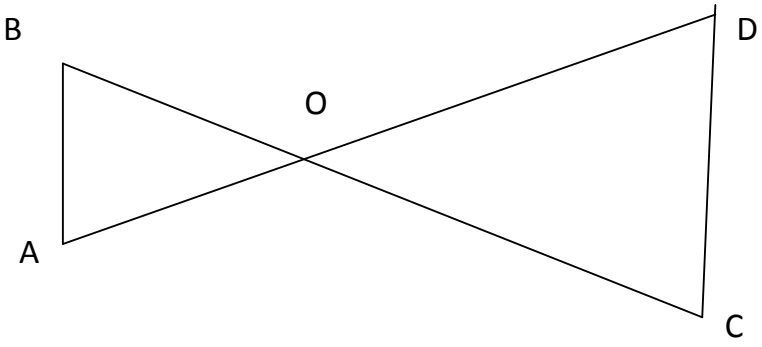
Q4.In the figure AB ‖ CD,$\angle AEF = 50°$ find $\angle CFE$.



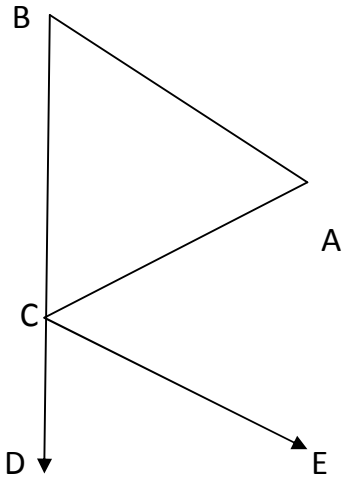
Q5.Line $l \parallel m$,a pair of corresponding angles are (7x – 20)° and (3x + 20)° . Find the value of x.

<u>SHORT ANSWER TYPE – I QUESTIONS</u>:

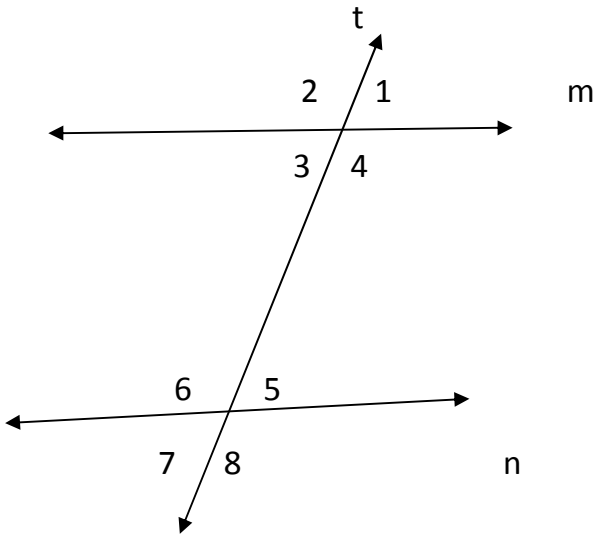
Q6.In the figure if $\angle BAO = \angle DCO$ and OC = OD, show that $AB \parallel CD$.



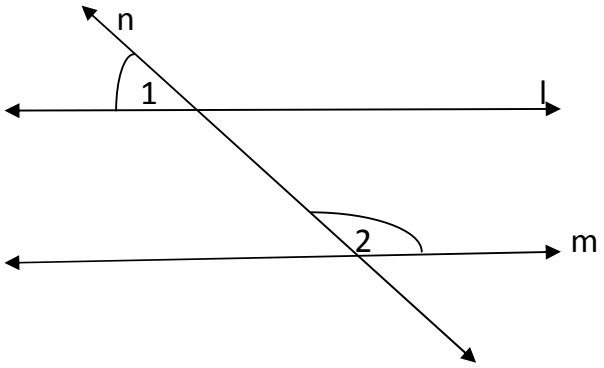
Q7. In the figure , $\angle BAC = 65°$ and $CE \parallel AB$. If $\angle ECD = 40°$, Find the other two angles of the triangle ABC.



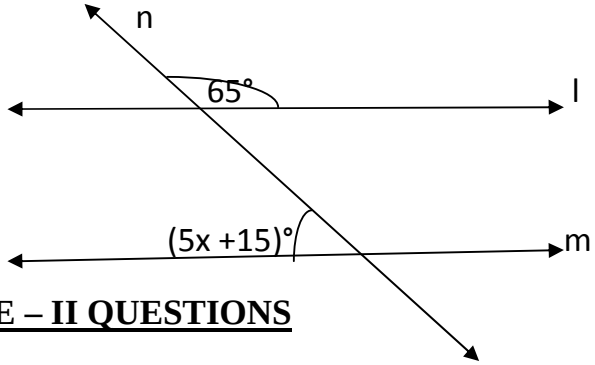
Q8.In the figure,$\angle 1 = 60°$ and $\angle 6 = 120°$. Show that the lines m and n are parallel.



Q9.In the figure line $l \parallel m$, if $\angle 1=(2x+36)°$ and $\angle 2=(7x-9)°$,what is the measure of $\angle 1$?

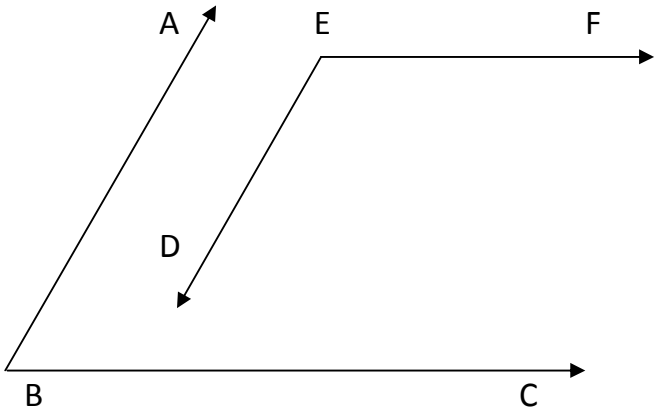


Q10. For what value of x ,is $l \parallel m$



SHORT ANSWER TYPE – II QUESTIONS

Q11. In the given figure , BA‖ED and BC ‖ EF. Show that $\angle ABC + \angle DEF = 180^0$.

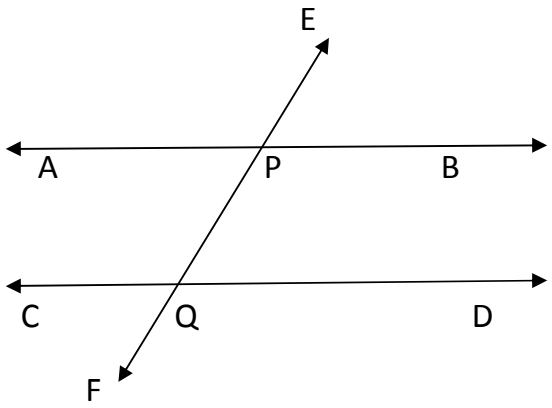


Q12.Draw a line segment AB=8cm .Find P on it such that AP = $\frac{1}{3}$ PB

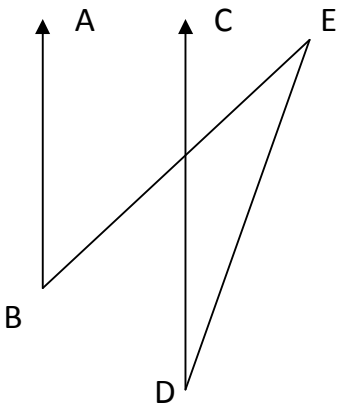
Q13. Draw a line segment of given length .Divide it into six equal parts.

Q14. In the figure AB ‖CD, If∠APQ =$3y^0$, ∠PQD = $(2y +25)^0$ and

∠CQF =$(x + 15)^0$. Find x.



Q15. In the figure if lines AB and CD are parallel lines, ∠ABE = 70^0 and ∠BED=30^0 ,then find the value of ∠CDE.

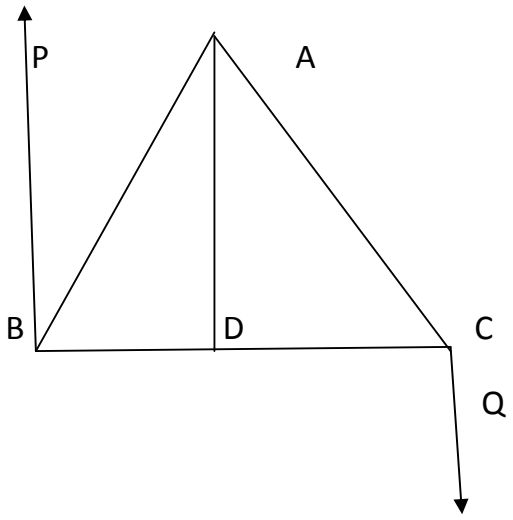


<u>LONG ANSWER TYPE QUESTIONS</u>:

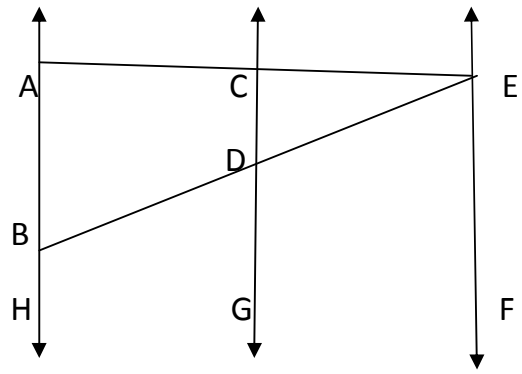
Q16. In the figure ABC is a triangle AD⊥ BC and QC ⊥ BC .

$\angle PBA = \angle DAB = 20°$ .Show that

(i) BP‖ AD ii)CQ ‖ AD iii) BP‖ CQ



Q17.In the figure AH‖ CG ‖EF. Also EA ⊥AH. If $\angle BEF = 55°$. Find the value of $\angle DBH, \angle EDG, \angle CED$ and $\angle ECD$



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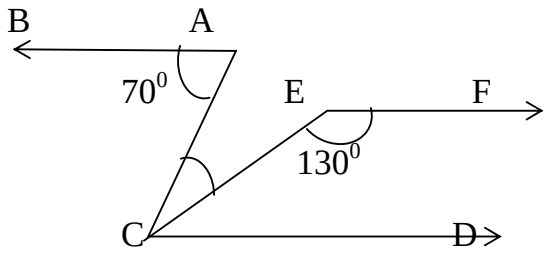
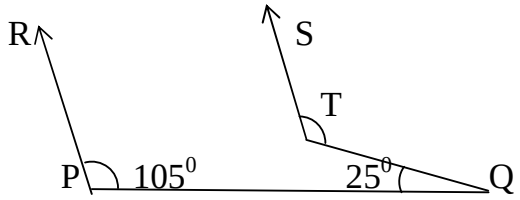
SUBJECT: MATHEMATICS
CLASS: VIII
CHAPTER – 10 (PARALLEL LINES)
WORKSHEET-3(HOTS)

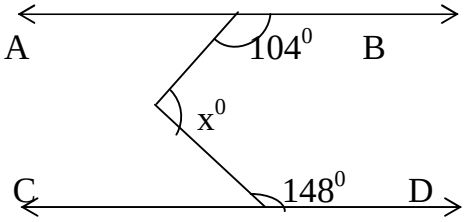
1. In the figure, if AB || CD and CD || EF , then find measure of ∠ACE .



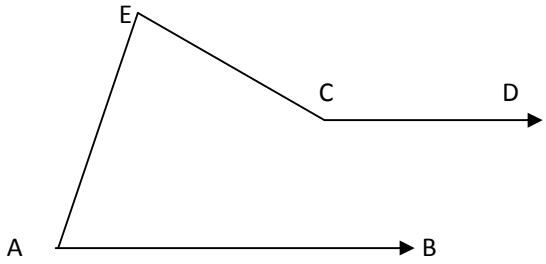
2. In the figure, if PR || TS, then find measure of ∠STQ.



3. In the figure, AB || CD, then find value of ‘x’ .

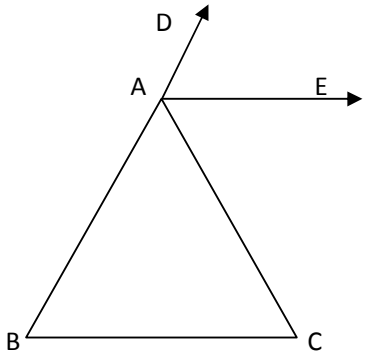


4. If the arms of one angle are respectively parallel to the arms of another angle, show that the two angles are either equal or supplementary.
5. If two parallel lines are intersected by a transversal, then prove that the bisectors of any pair of alternate interior angels are parallel.
6. In the given figure, AB ‖ CD. Find ∠AEC if ∠BAE = 50^0 and ∠ ECD

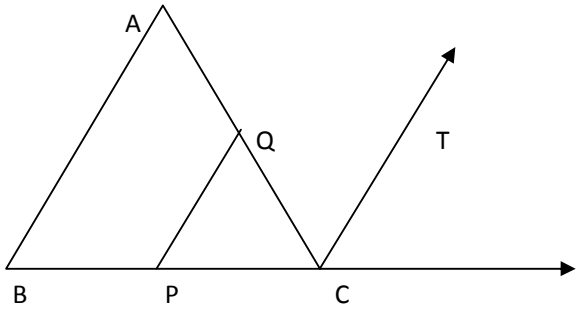


7. Draw a line segment PQ = 6.5cm. Find a point M on it such that PM : PQ = 3:5.

8. In the given figure, AE bisects ∠CAD and ∠B = ∠C . Prove that AE ‖ BC .



9. In Δ ABC, P is the mid point of BC, Q is the mid point of AC and CT‖ AB. Find all the angles of Δ ABC.



10. Prove that if two lines are intersected by a transversal and the bisectors of a pair of co interior angles are perpendicular to each other, then the two lines are parallel.

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