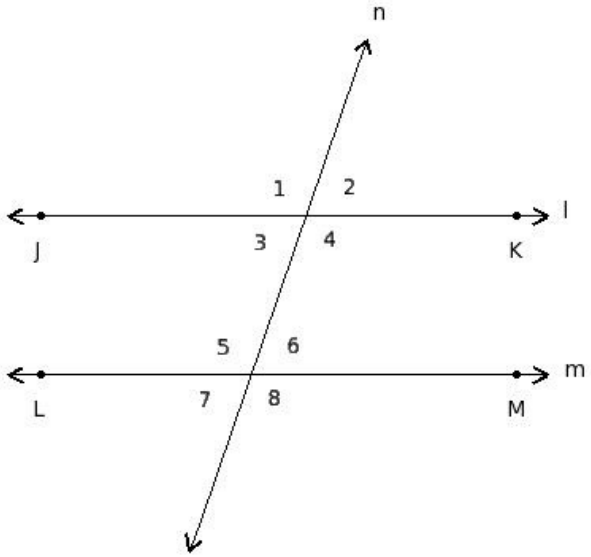
EduSahara™ Assignment

Name : Parallel Lines and Transversal

Chapter : Parallel Lines

Grade : ICSE Grade VI

1. Find the adjacent angles in the given figure

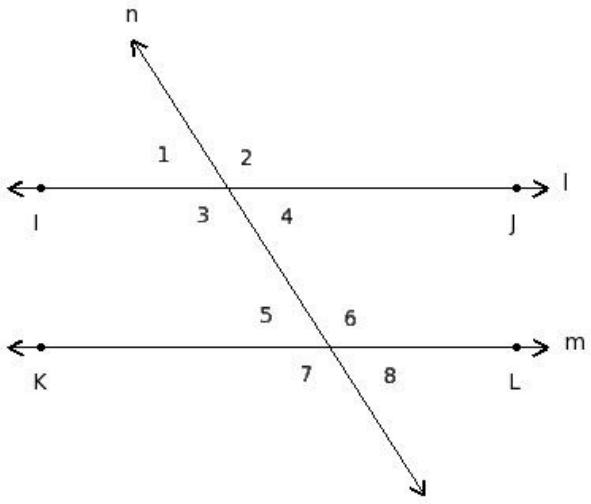


(i) ∠3 , ∠6 ; ∠4 , ∠5 (ii) ∠1 , ∠8 ; ∠2 , ∠7

(iii) ∠1 , ∠2 ; ∠2 , ∠4 ; ∠4 , ∠3 ; ∠3 , ∠1 ; ∠5 , ∠6 ; ∠6 , ∠8 ; ∠8 , ∠7 ; ∠7 , ∠5

(iv) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (v) ∠1 , ∠2 , ∠7 , ∠8

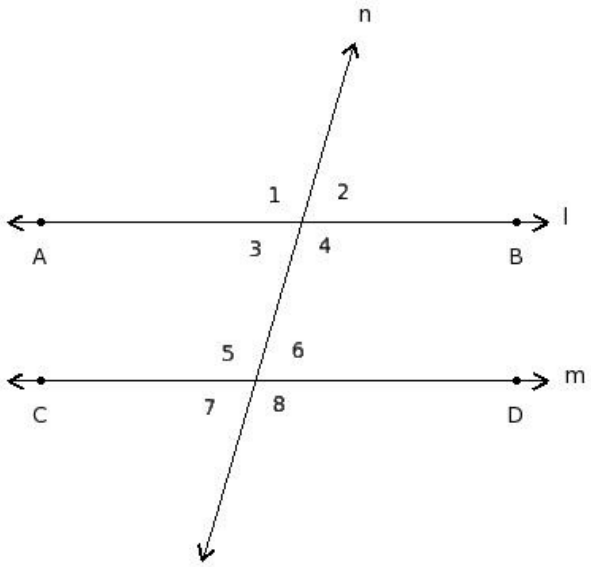
2. Find the vertically opposite angles in the given figure



(i) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7 (ii) ∠3 , ∠6 ; ∠4 , ∠5 (iii) ∠1 , ∠8 ; ∠2 , ∠7

(iv) ∠1 , ∠2 , ∠7 , ∠8 (v) ∠3 , ∠4 , ∠5 , ∠6

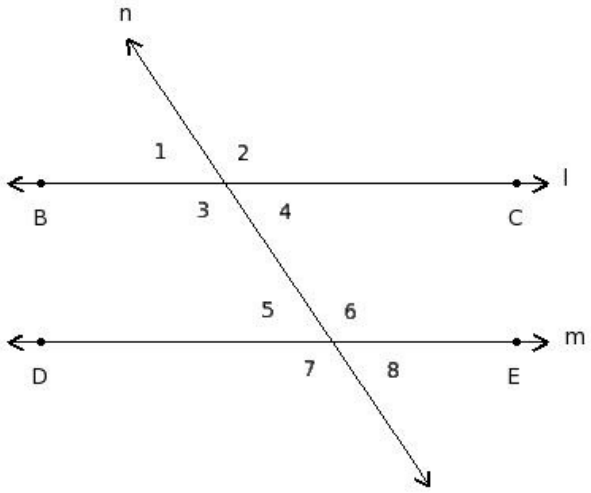
3. Find the interior angles in the given figure



(i) ∠1 , ∠8 ; ∠2 , ∠7 (ii) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (iii) ∠3 , ∠5 ; ∠4 , ∠6

(iv) ∠1 , ∠2 , ∠7 , ∠8 (v) ∠3 , ∠4 , ∠5 , ∠6

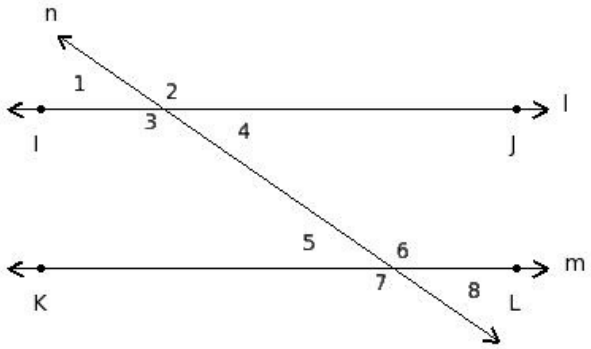
4. Find the exterior angles in the given figure



(i) ∠1 , ∠2 ; ∠2 , ∠4 ; ∠4 , ∠3 ; ∠3 , ∠1 ; ∠5 , ∠6 ; ∠6 , ∠8 ; ∠8 , ∠7 ; ∠7 , ∠5 (ii) ∠3 , ∠4 , ∠5 , ∠6

(iii) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7 (iv) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (v) ∠1 , ∠2 , ∠7 , ∠8

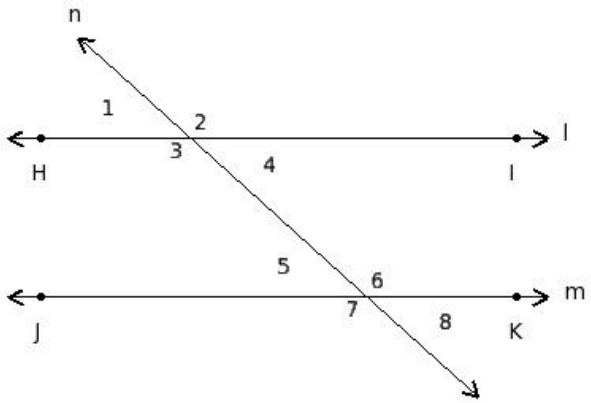
5. Find the interior alternate angles in the given figure



(i) ∠1 , ∠8 ; ∠2 , ∠7 (ii) ∠3 , ∠6 ; ∠4 , ∠5 (iii) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8

(iv) ∠1 , ∠2 ; ∠2 , ∠4 ; ∠4 , ∠3 ; ∠3 , ∠1 ; ∠5 , ∠6 ; ∠6 , ∠8 ; ∠8 , ∠7 ; ∠7 , ∠5 (v) ∠1 , ∠2 , ∠7 , ∠8

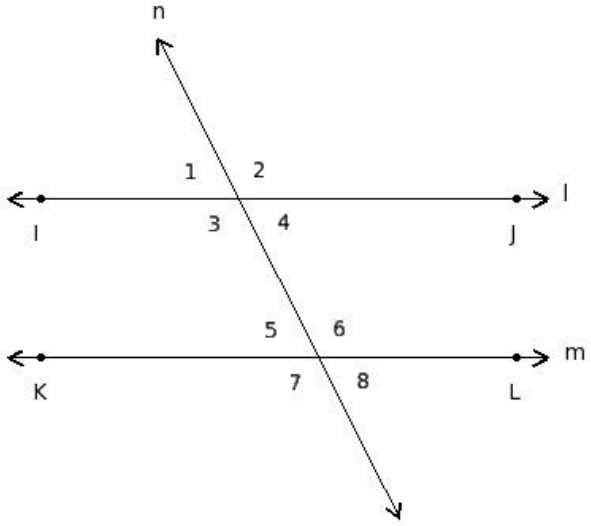
6. Find the exterior alternate angles in the given figure



(i) ∠1 , ∠8 ; ∠2 , ∠7 (ii) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (iii) ∠3 , ∠5 ; ∠4 , ∠6

(iv) ∠3 , ∠4 , ∠5 , ∠6 (v) ∠1 , ∠2 , ∠7 , ∠8

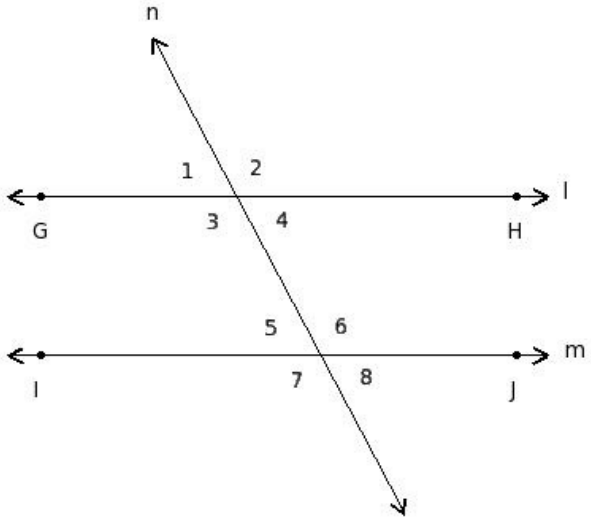
7. Find the corresponding angles in the given figure



(i) ∠1 , ∠8 ; ∠2 , ∠7 (ii) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (iii) ∠3 , ∠5 ; ∠4 , ∠6

(iv) ∠3 , ∠6 ; ∠4 , ∠5 (v) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7

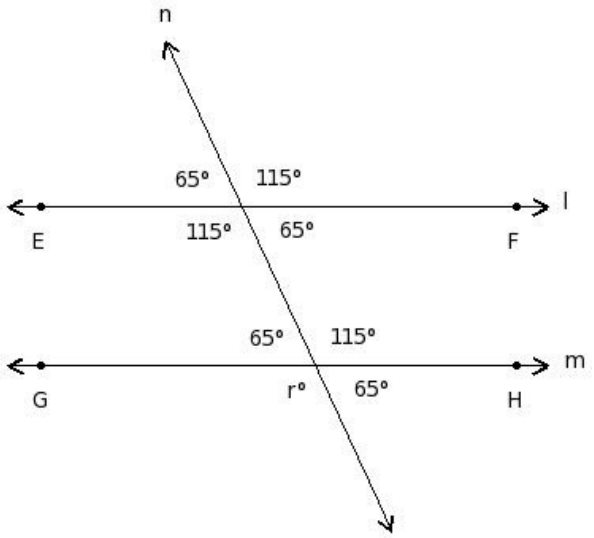
8. Find the co-interior angles in the given figure



(i) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8 (ii) ∠1 , ∠2 , ∠7 , ∠8 (iii) ∠3 , ∠4 , ∠5 , ∠6

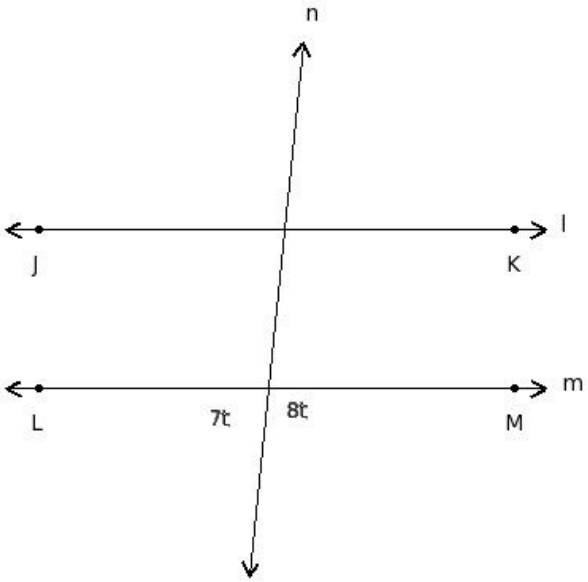
(iv) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7 (v) ∠3 , ∠5 ; ∠4 , ∠6

9. Find the value of 'r'



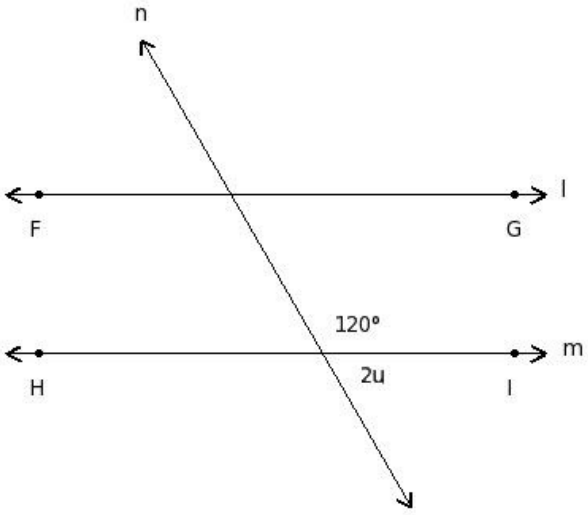
(i) 125° (ii) 130° (iii) 145° (iv) 120° (v) 115°

10. In the given figure l ∥ m. Find the value of 't'



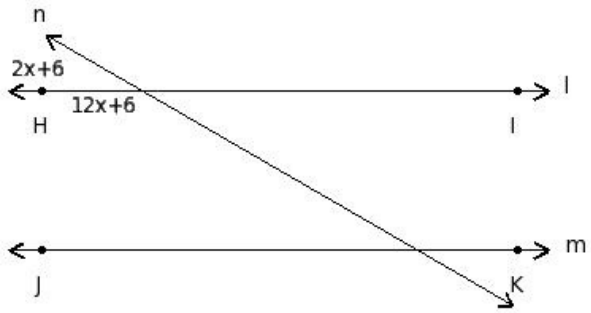
(i) 11 (ii) 10 (iii) 13 (iv) 12 (v) 14

11. In the given figure l ∥ m. Find the value of 'u'



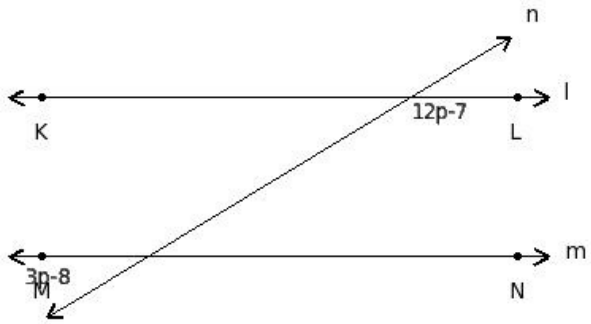
(i) 29 (ii) 30 (iii) 32 (iv) 28 (v) 31

12. In the given figure l ‖ m. Find the value of 'x'



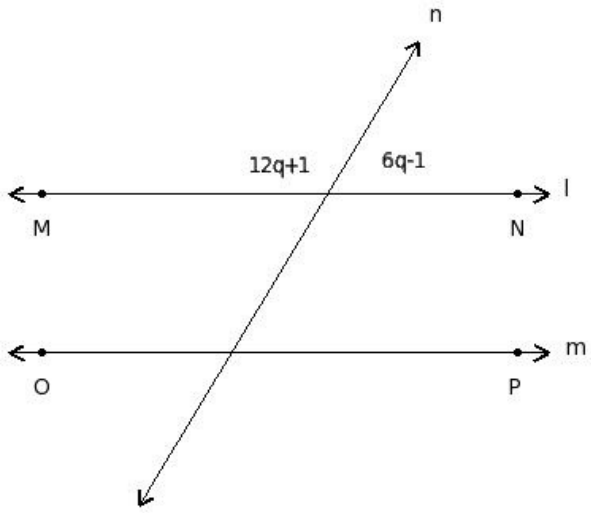
(i) 13 (ii) 15 (iii) 12 (iv) 11 (v) 9

13. In the given figure l ‖ m. Find the value of 'p'



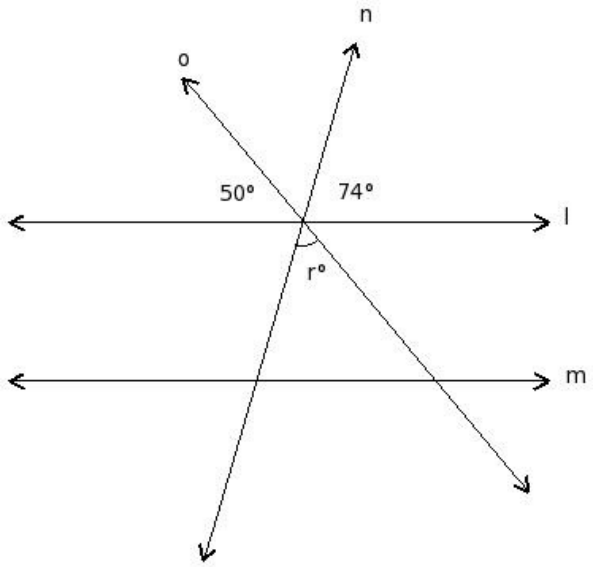
(i) 16 (ii) 12 (iii) 10 (iv) 13 (v) 14

14. In the given figure l ‖ m. Find the value of 'q'



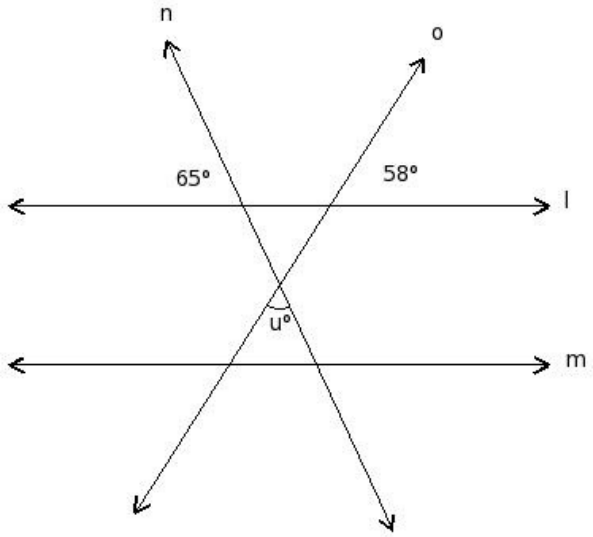
(i) 7 (ii) 11 (iii) 10 (iv) 12 (v) 9

15. In the given figure l ∥ m. Find the value of 'r'



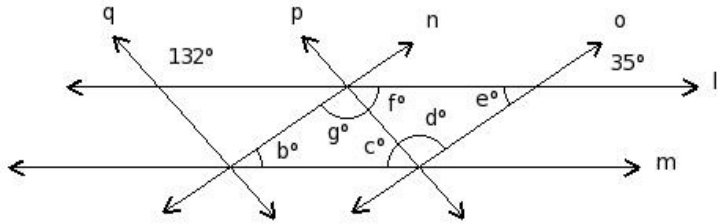
(i) 56° (ii) 86° (iii) 71° (iv) 61° (v) 66°

16. In the given figurel ∥ m. Find the value of 'u'



(i) 67° (ii) 72° (iii) 57° (iv) 62° (v) 87°

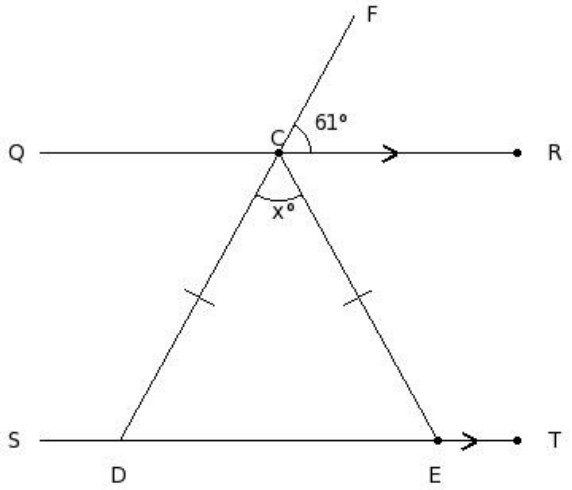
17. In the given figure, l ∥ m and n ∥ o and p ∥ q. Find the values of {b,c,d,e,f,g}



(i) 48°,48°,35°,97°,97°,35° (ii) 97°,35°,48°,97°,35°,48° (iii) 35°,97°,48°,35°,97°,48°

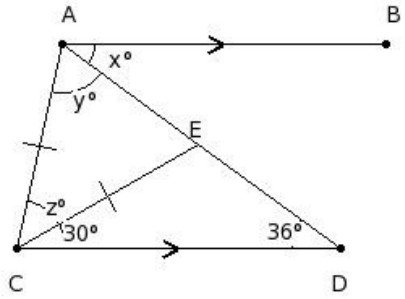
(iv) 35°,48°,97°,35°,48°,97° (v) 35°,97°,35°,97°,48°,48°

18. In the given figure, QR ∥ ST, ∠FCR = 61° and CD = EC. Find the measure of x.



(i) x=59° (ii) x=60° (iii) x=56° (iv) x=57° (v) x=58°

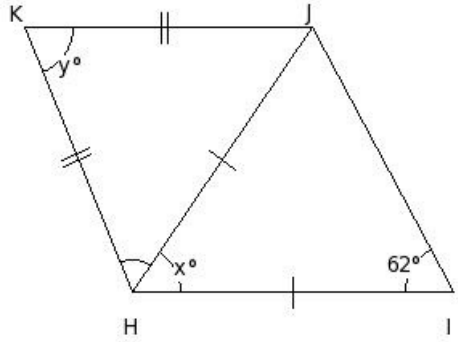
19. In the given figure, AB ∥ CD and AC = CE. Find the values of x,y and z.



(i) x=38°,y=66°,z=46° (ii) x=34°,y=66°,z=50° (iii) x=36°,y=66°,z=48° (iv) x=36°,y=64°,z=50°

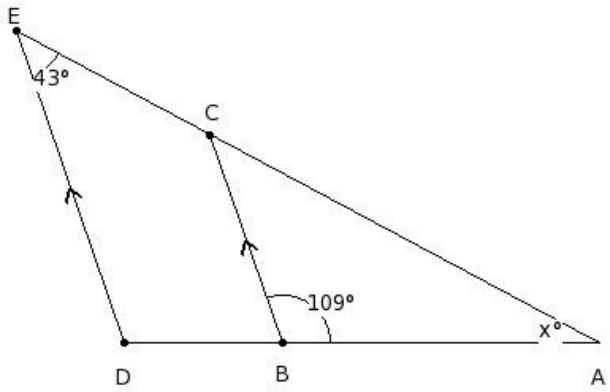
(v) x=34°,y=68°,z=48°

20. In the following figure HI ∥ KJ, find the values of x and y.



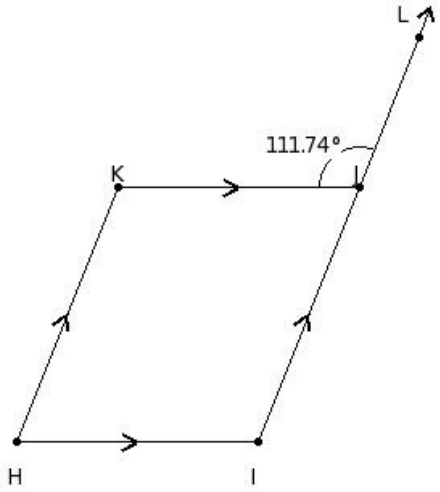
(i) x=54°,y=66° (ii) x=58°,y=70° (iii) x=57°,y=69° (iv) x=55°,y=67° (v) x=56°,y=68°

21. In the given figure, it is given that CB ∥ ED , ∠CED = 43° and ∠CBA = 109°. Find the value of x.



(i) x=29° (ii) x=26° (iii) x=30° (iv) x=27° (v) x=28°

22. In the adjoining figure, side IJ of parallelogram HIJK has been produced to L. If ∠KJL = 111.74° , find the measure of each angle of the parallelogram.

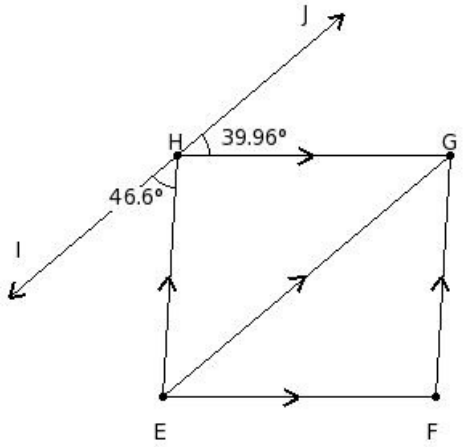


(i) H=70.26°,I=110.74°,J=66.26°,K=112.74° (ii) H=68.26°,I=111.74°,J=68.26°,K=111.74°

(iii) H=67.26°,I=109.74°,J=69.26°,K=113.74° (iv) H=69.26°,I=110.74°,J=70.26°,K=109.74°

(v) H=66.26°,I=113.74°,J=67.26°,K=112.74°

23. In the adjoining figure, EFGH is a parallelogram and IJ is such that $\overline{IJ} \parallel \overline{EG}$
If ∠EHI = 46.6° and ∠GHJ = 39.96° , find the measure of ∠GHE .



(i) 92.43° (ii) 95.43° (iii) 93.43° (iv) 91.43° (v) 94.43°

24. Which of the following are true for alternate angles?

a) They are not adjacent angles
b) Both are interior angles
c) They are on either side of the transversal
d) They are adjacent angles
e) One is interior angle and the other is exterior
f) They are in the same side of the transversal

(i) {a,b,c} (ii) {d,a} (iii) {f,d,c} (iv) {e,a,b} (v) {e,b}

25. Which of the following are true for corresponding angles?

a) They are not adjacent angles
b) They are on the same side of the transversal
c) They are on either side of the transversal
d) One is interior angle and the other is exterior angle
e) They are adjacent angles
f) Both are interior angles

(i) {e,b} (ii) {f,c,d} (iii) {e,a,b} (iv) {c,a} (v) {a,b,d}

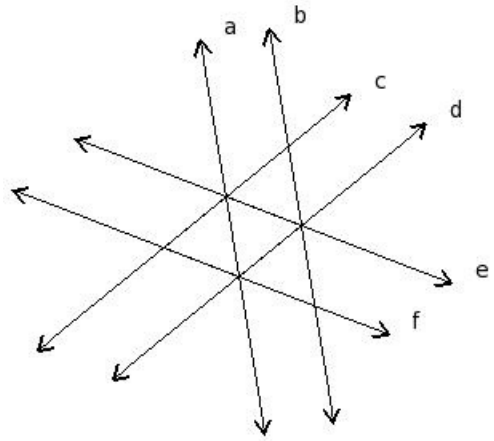
26. Which of the following are true?

a) If two lines are parallel to the same line, then they are parallel to each other
b) If $x \parallel y$ and $y \parallel z$, then $x \parallel z$
c) If $x \perp y$ and $y \perp z$, then $x \perp z$
d) If two lines are parallel to the same line, then they are perpendicular to each other
e) If $x \perp y$ and $x \perp z$, then $y \perp z$

(i) {e,c,a} (ii) {d,b} (iii) {d,b,a} (iv) {c,a} (v) {a,b}

27. In the given figure, a , b , c , d , e , f are lines in a plane. By looking at the figure, which of the following are true?

a) $a \parallel b$
b) $a \parallel d$
c) a is the transversal of c & e
d) d is the transversal of a & b
e) f is the transversal of c & a
f) e is the transversal of c & d



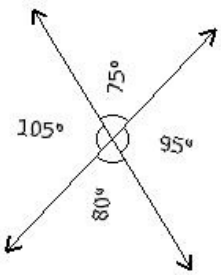
(i) {a,d,e,f} (ii) {b,a} (iii) {b,c,e} (iv) {b,f,a} (v) {c,d}

28. Which of the following are true with respect to lines i , j , k , l where $i \parallel j$, $j \perp k$, $k \perp l$?

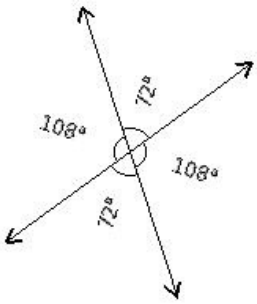
a) $k \parallel l$
b) $j \parallel l$
c) $i \parallel k$
d) $i \parallel l$
e) $i \perp l$

(i) {b,d} (ii) {a,b} (iii) {c,d} (iv) {c,d,b} (v) {e,a,b}

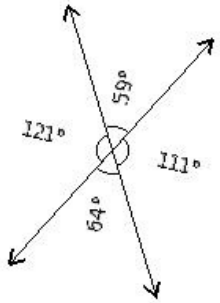
29. Which of the given figures is correct?



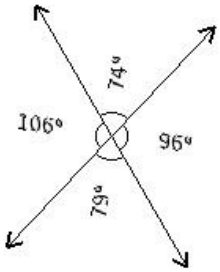
I



II



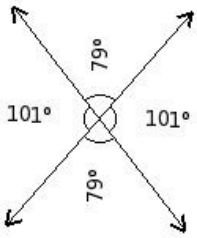
III



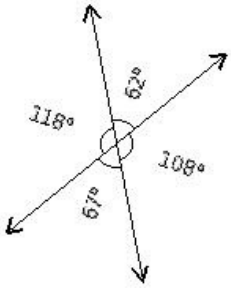
IV

(i) II (ii) IV (iii) I (iv) III

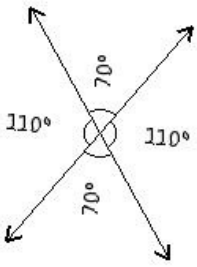
30. Which of the given figures is wrong?



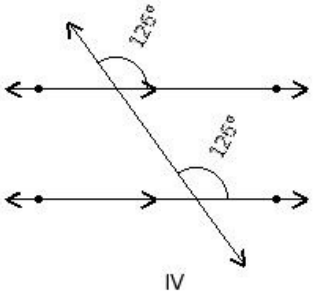
I



II



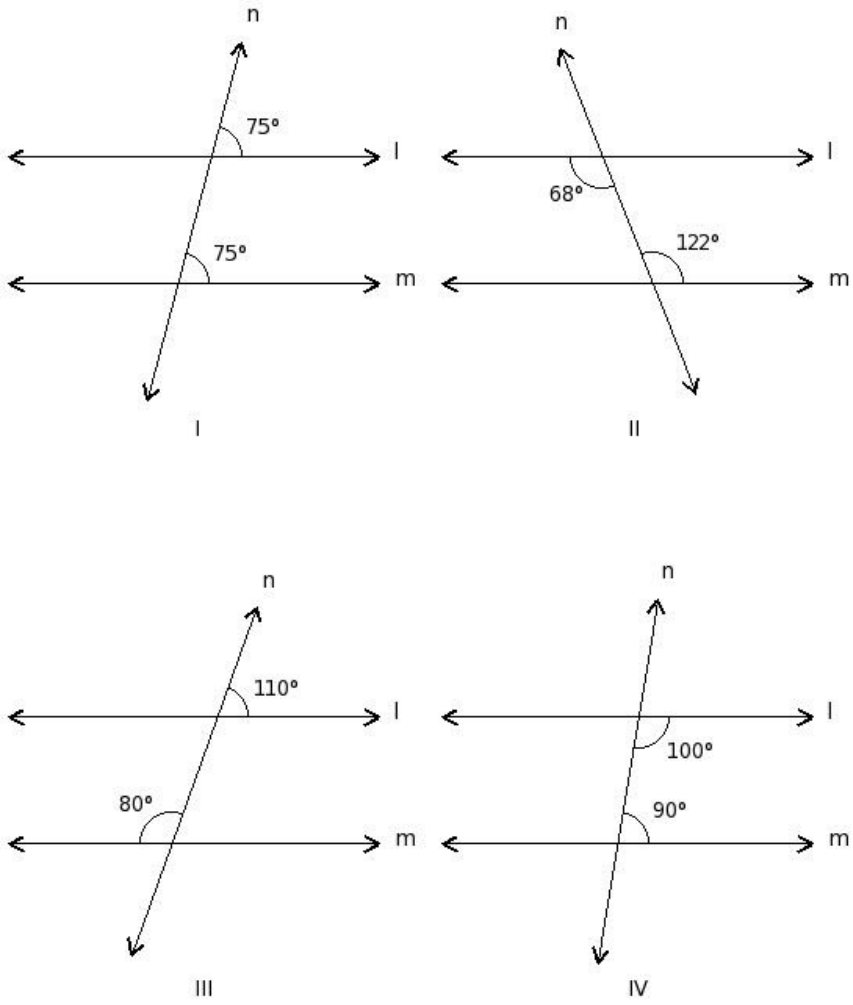
III



IV

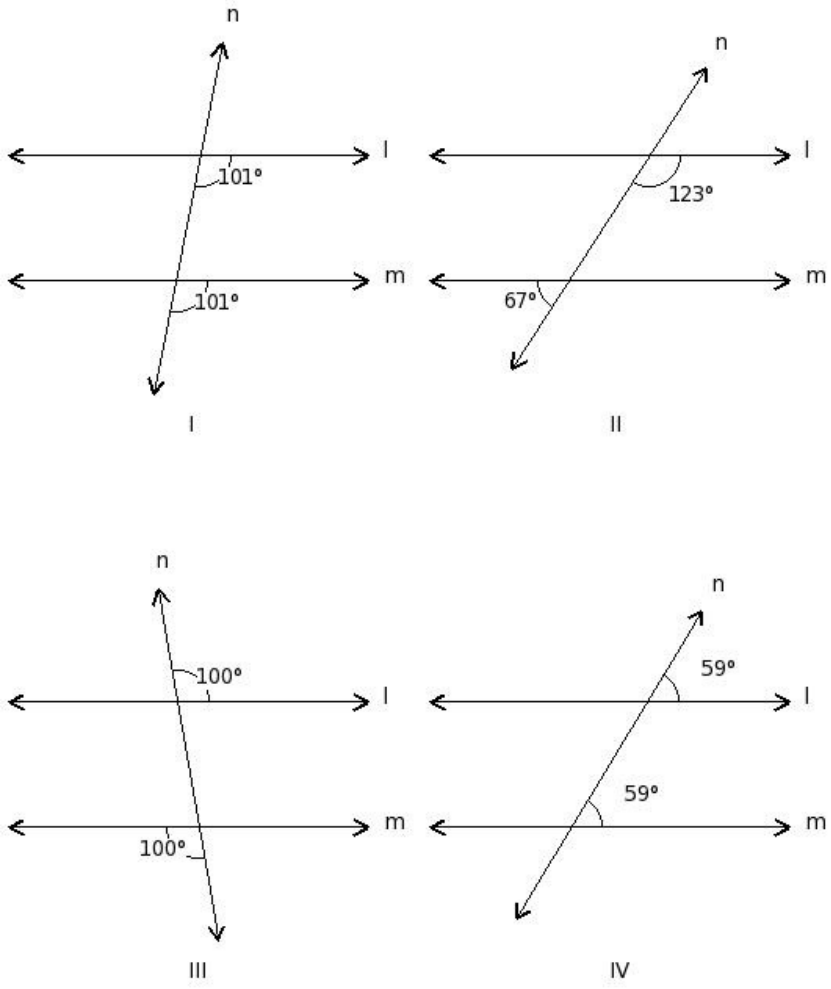
(i) IV (ii) III (iii) I (iv) II

31. In which of the figures given bellow, l ‖ m?



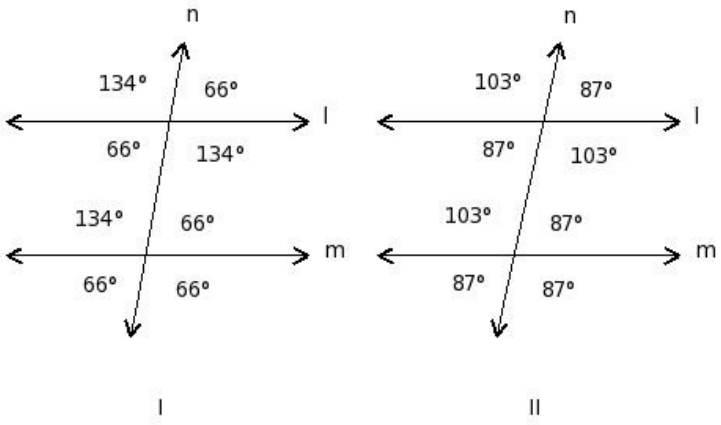
(i) III (ii) I (iii) II (iv) IV

32. In which of the figures given bellow, l ∦ m(not parallel)?



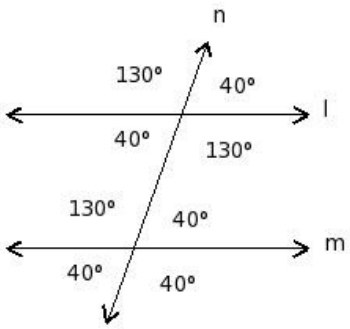
(i) I (ii) III (iii) II (iv) IV

33. If l ∥ m, which of the given figures is correct?

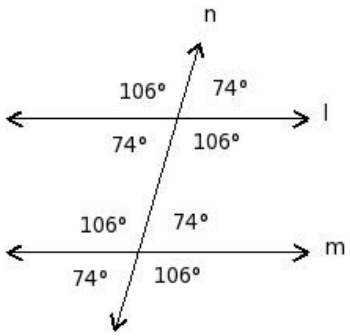


I

II



III



IV

(i) IV (ii) III (iii) I (iv) II

Assignment Key

1) (iii)	2) (i)	3) (v)	4) (v)	5) (ii)	6) (i)
7) (ii)	8) (v)	9) (v)	10) (iv)	11) (ii)	12) (iii)
13) (iv)	14) (iii)	15) (i)	16) (iii)	17) (iv)	18) (v)
19) (iii)	20) (v)	21) (v)	22) (ii)	23) (iii)	24) (i)
25) (v)	26) (v)	27) (i)	28) (i)	29) (i)	30) (iv)
31) (ii)	32) (iii)	33) (i)			