

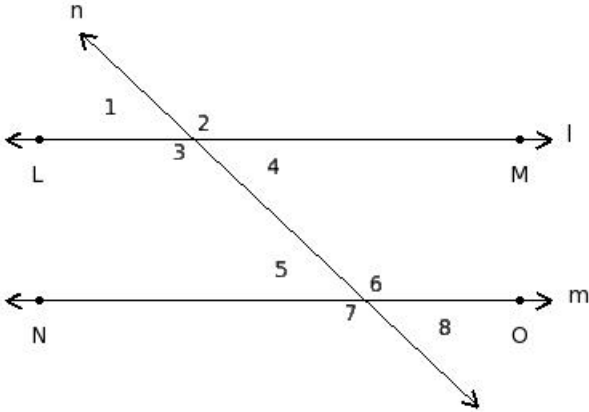
## EduSahara™ Learning Center Assignment

**Grade : Class IX, CBSE**

**Chapter : Lines and Angles**

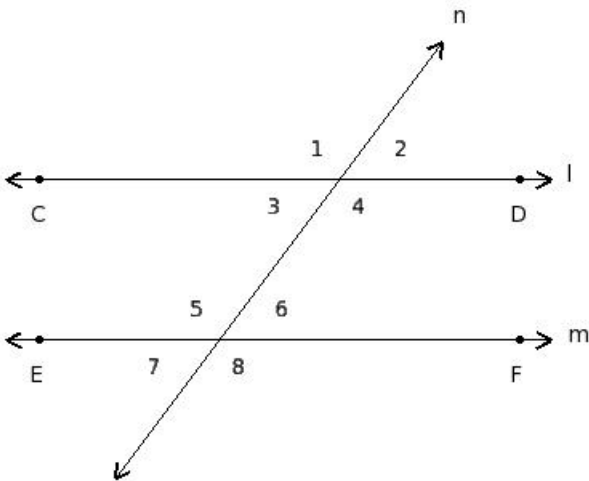
**Name : Parallel Lines and Transversal**

1. Find the adjacent angles in the given figure



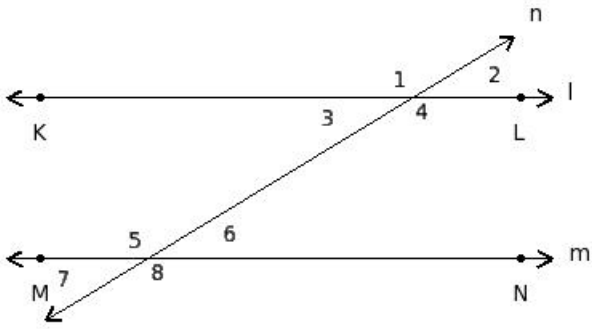
- (i)  $\angle 1, \angle 2$ ;  $\angle 2, \angle 4$ ;  $\angle 4, \angle 3$ ;  $\angle 3, \angle 1$ ;  $\angle 5, \angle 6$ ;  $\angle 6, \angle 8$ ;  $\angle 8, \angle 7$ ;  $\angle 7, \angle 5$   
 (ii)  $\angle 1, \angle 8$ ;  $\angle 2, \angle 7$   
 (iii)  $\angle 1, \angle 4$ ;  $\angle 2, \angle 3$ ;  $\angle 5, \angle 8$ ;  $\angle 6, \angle 7$   
 (iv)  $\angle 1, \angle 2, \angle 7, \angle 8$   
 (v)  $\angle 1, \angle 5$ ;  $\angle 2, \angle 6$ ;  $\angle 3, \angle 7$ ;  $\angle 4, \angle 8$

2. Find the vertically opposite angles in the given figure



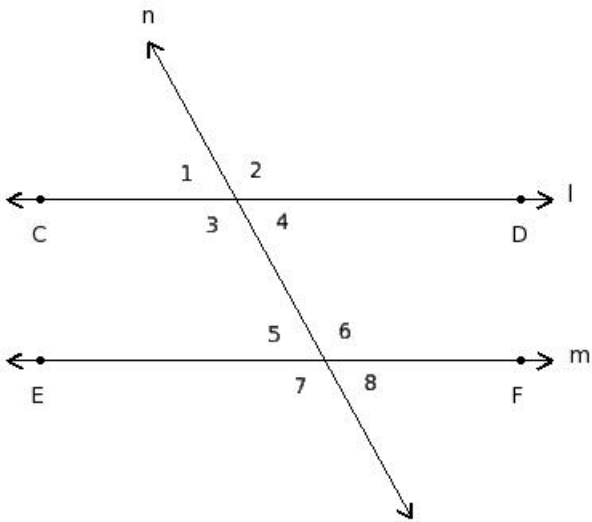
- (i)  $\angle 3, \angle 4, \angle 5, \angle 6$   
 (ii)  $\angle 1, \angle 4$ ;  $\angle 2, \angle 3$ ;  $\angle 5, \angle 8$ ;  $\angle 6, \angle 7$   
 (iii)  $\angle 1, \angle 2, \angle 7, \angle 8$   
 (iv)  $\angle 3, \angle 6$ ;  $\angle 4, \angle 5$   
 (v)  $\angle 1, \angle 8$ ;  $\angle 2, \angle 7$

3. Find the interior angles in the given figure



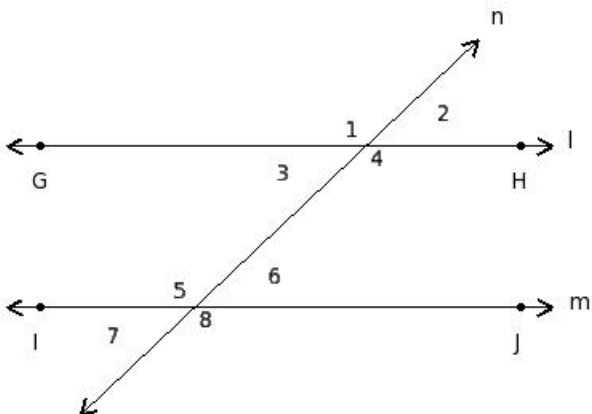
- (i)  $\angle 3, \angle 6; \angle 4, \angle 5$   
 (ii)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$   
 (iii)  $\angle 3, \angle 4, \angle 5, \angle 6$   
 (iv)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$   
 (v)  $\angle 1, \angle 8; \angle 2, \angle 7$

4. Find the exterior angles in the given figure



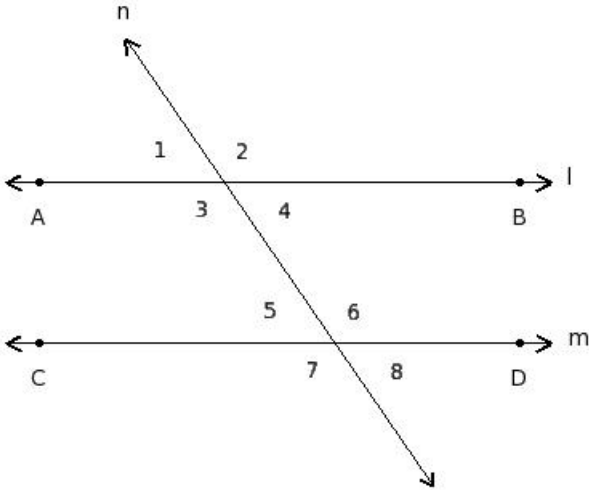
- (i)  $\angle 1, \angle 8; \angle 2, \angle 7$   
 (ii)  $\angle 1, \angle 2, \angle 7, \angle 8$   
 (iii)  $\angle 3, \angle 6; \angle 4, \angle 5$   
 (iv)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$   
 (v)  $\angle 3, \angle 4, \angle 5, \angle 6$

5. Find the interior alternate angles in the given figure



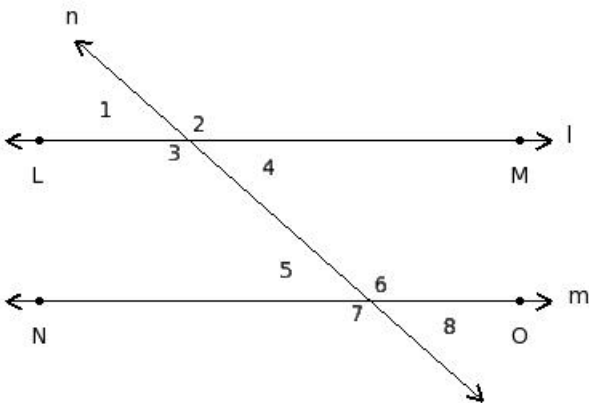
- (i)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (ii)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (iii)  $\angle 3, \angle 4, \angle 5, \angle 6$
- (iv)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (v)  $\angle 1, \angle 2, \angle 7, \angle 8$

6. Find the exterior alternate angles in the given figure



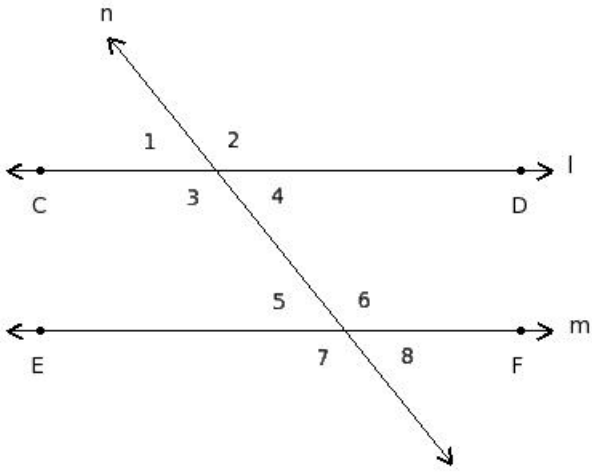
- (i)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (iii)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (iv)  $\angle 1, \angle 8; \angle 2, \angle 7$
- (v)  $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6, \angle 8; \angle 8, \angle 7; \angle 7, \angle 5$

7. Find the corresponding angles in the given figure



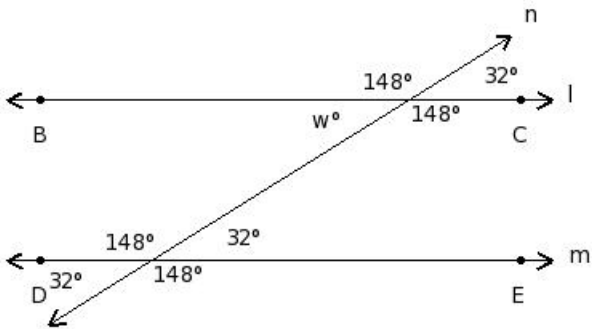
- (i)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (ii)  $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6, \angle 8; \angle 8, \angle 7; \angle 7, \angle 5$
- (iii)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (iv)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (v)  $\angle 1, \angle 2, \angle 7, \angle 8$

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



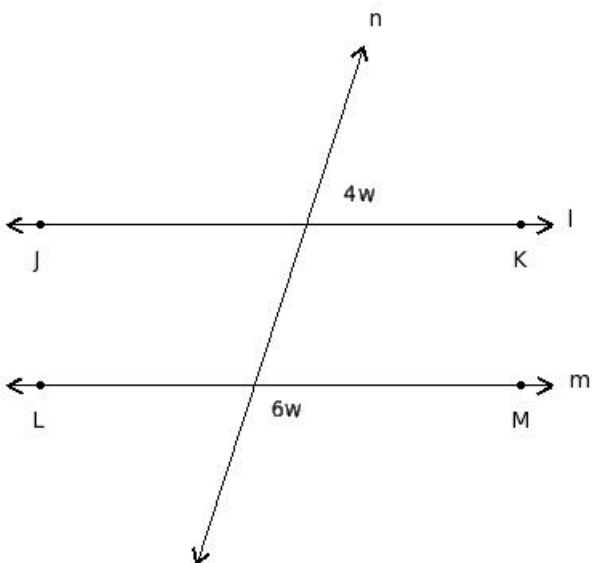
- (i)  $\angle 1, \angle 8; \angle 2, \angle 7$
- (ii)  $\angle 1, \angle 2, \angle 7, \angle 8$
- (iii)  $\angle 3, \angle 4, \angle 5, \angle 6$
- (iv)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (v)  $\angle 3, \angle 5; \angle 4, \angle 6$

9. Find the value of 'w'



- (i)  $32^\circ$  (ii)  $47^\circ$  (iii)  $62^\circ$  (iv)  $42^\circ$  (v)  $37^\circ$

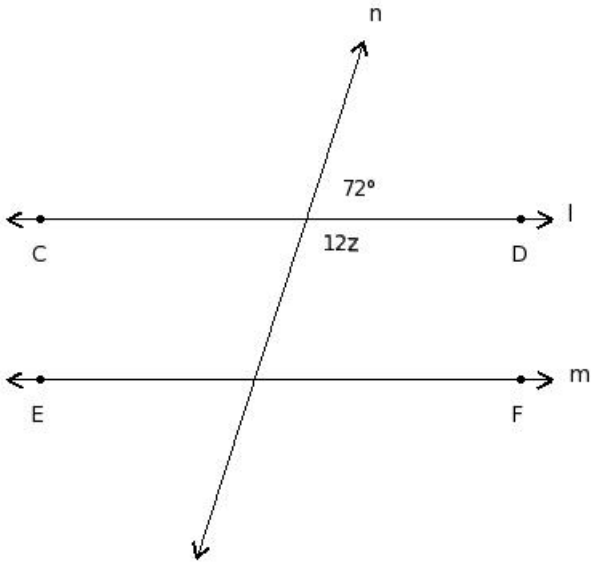
10. In the given figure  $l \parallel m$ . Find the value of 'w'



- (i) 18 (ii) 17 (iii) 19 (iv) 21 (v) 15

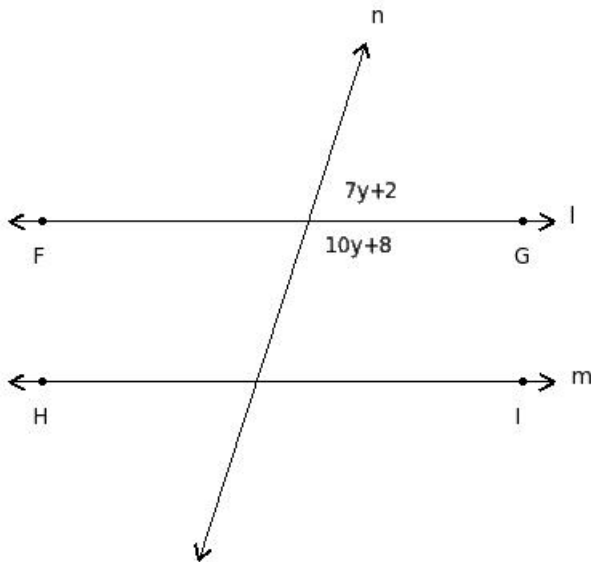
11.

In the given figure  $l \parallel m$ . Find the value of 'z'



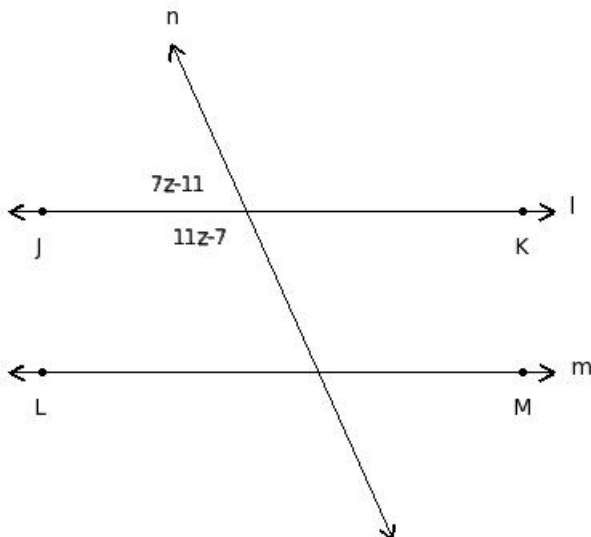
- (i) 12 (ii) 9 (iii) 8 (iv) 6 (v) 10

12. In the given figure  $l \parallel m$ . Find the value of 'y'



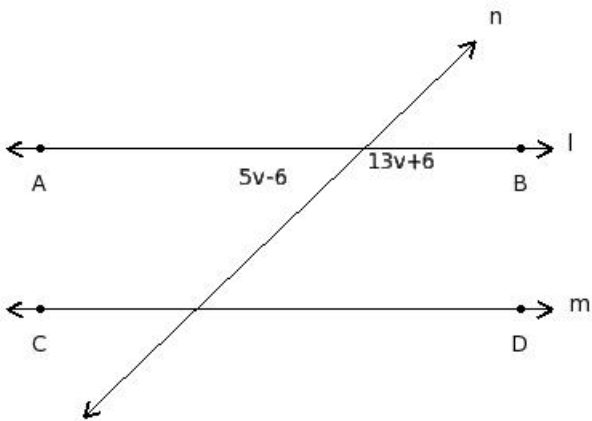
- (i) 10 (ii) 11 (iii) 8 (iv) 9 (v) 12

13. In the given figure  $l \parallel m$ . Find the value of 'z'



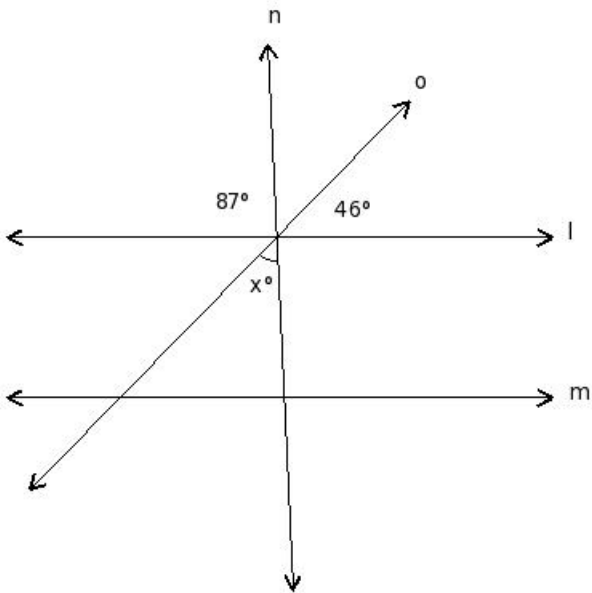
(i) 11 (ii) 9 (iii) 12 (iv) 10 (v) 14

14. In the given figure  $l \parallel m$ . Find the value of 'v'



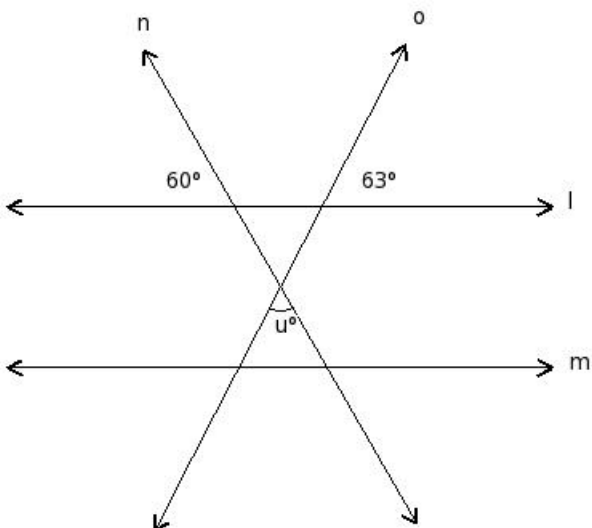
(i) 9 (ii) 11 (iii) 12 (iv) 10 (v) 8

15. In the given figure  $l \parallel m$ . Find the value of 'x'



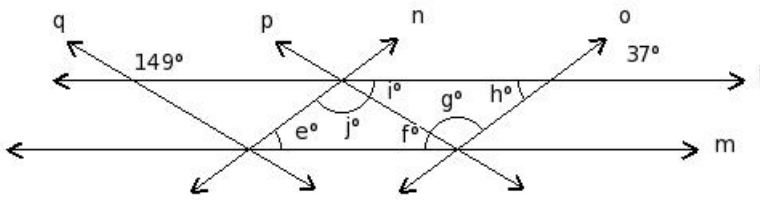
(i)  $52^\circ$  (ii)  $57^\circ$  (iii)  $47^\circ$  (iv)  $77^\circ$  (v)  $62^\circ$

16. In the given figure  $l \parallel m$ . Find the value of 'u'



- (i)  $62^\circ$  (ii)  $57^\circ$  (iii)  $72^\circ$  (iv)  $87^\circ$  (v)  $67^\circ$

17. In the given figure,  $l \parallel m$  and  $n \parallel o$  and  $p \parallel q$ . Find the values of  $\{e, f, g, h, i, j\}$



- (i)  $31^\circ, 31^\circ, 112^\circ, 112^\circ, 37^\circ, 37^\circ$   
 (ii)  $112^\circ, 31^\circ, 37^\circ, 31^\circ, 112^\circ, 37^\circ$   
 (iii)  $31^\circ, 37^\circ, 112^\circ, 37^\circ, 31^\circ, 112^\circ$   
 (iv)  $37^\circ, 31^\circ, 112^\circ, 37^\circ, 112^\circ, 31^\circ$   
 (v)  $37^\circ, 31^\circ, 112^\circ, 37^\circ, 31^\circ, 112^\circ$

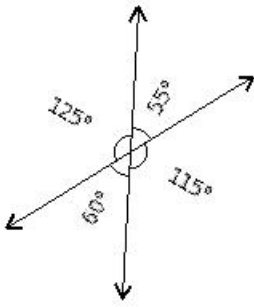
18. Which of the following are true for alternate angles?

- a) Both are interior angles  
 b) One is interior angle and the other is exterior  
 c) They are adjacent angles  
 d) They are on either side of the transversal  
 e) They are not adjacent angles  
 f) They are in the same side of the transversal  
 (i)  $\{c, d\}$  (ii)  $\{f, b, e\}$  (iii)  $\{a, d, e\}$  (iv)  $\{b, a\}$  (v)  $\{c, a, d\}$

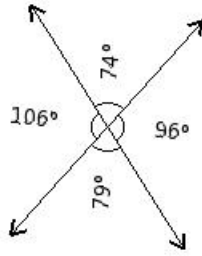
19. Which of the following are true for corresponding angles?

- a) Both are interior angles  
 b) They are adjacent angles  
 c) They are on either side of the transversal  
 d) One is interior angle and the other is exterior angle  
 e) They are not adjacent angles  
 f) They are on the same side of the transversal  
 (i)  $\{b, e\}$  (ii)  $\{c, a, f\}$  (iii)  $\{b, d, e\}$  (iv)  $\{a, d\}$  (v)  $\{d, e, f\}$

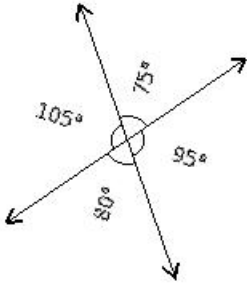
20. Which of the given figures is correct?



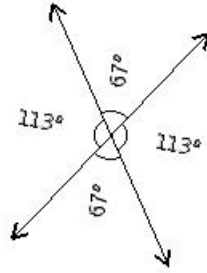
I



II



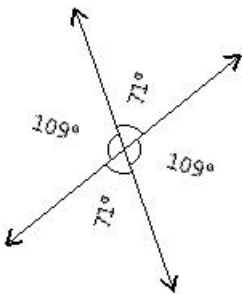
III



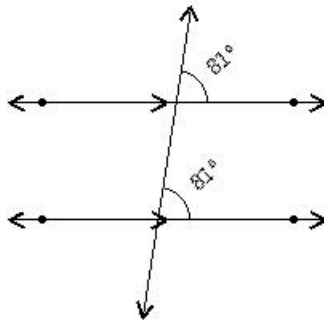
IV

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

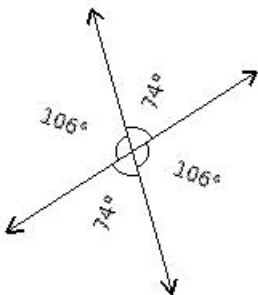
21. Which of the given figures is wrong?



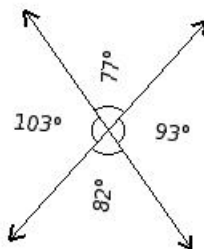
I



II



III

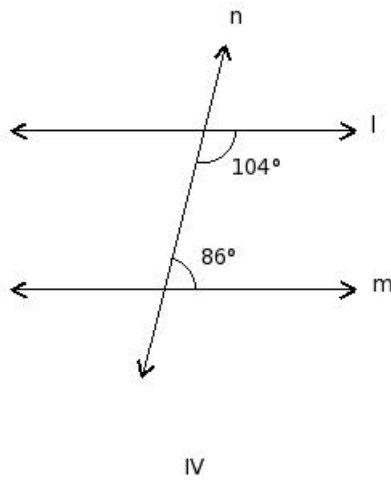
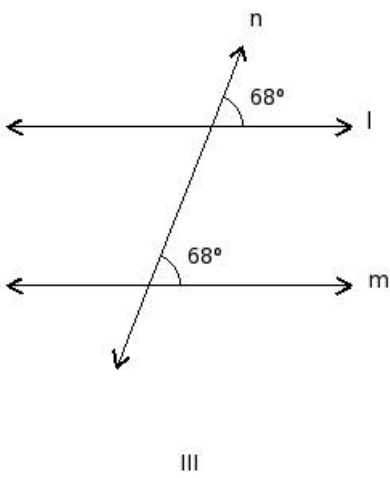
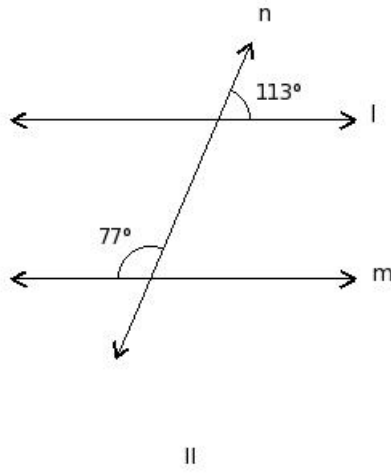
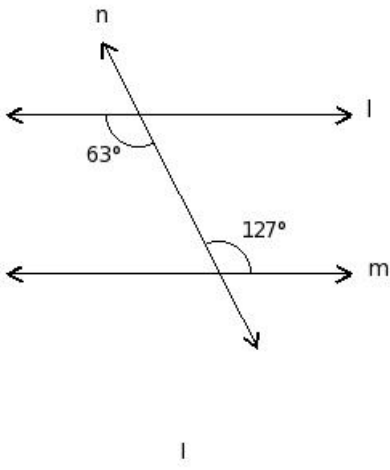


IV

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

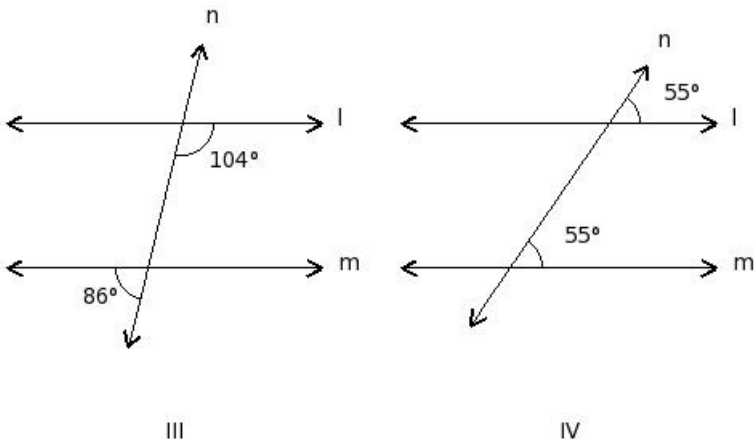
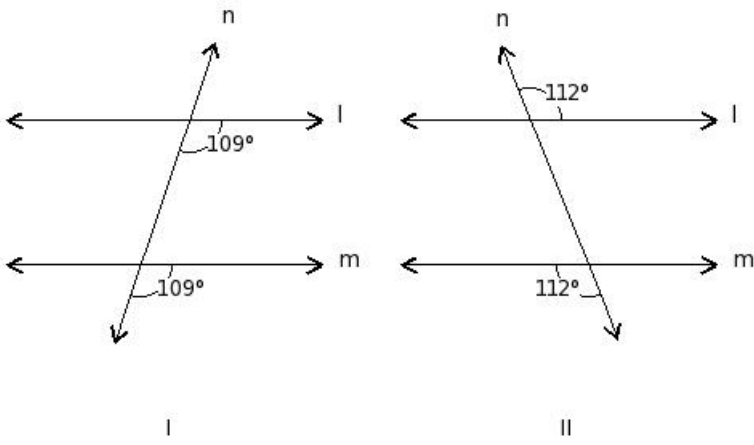
22. In which of the figures given below,  $l \parallel m$ ?





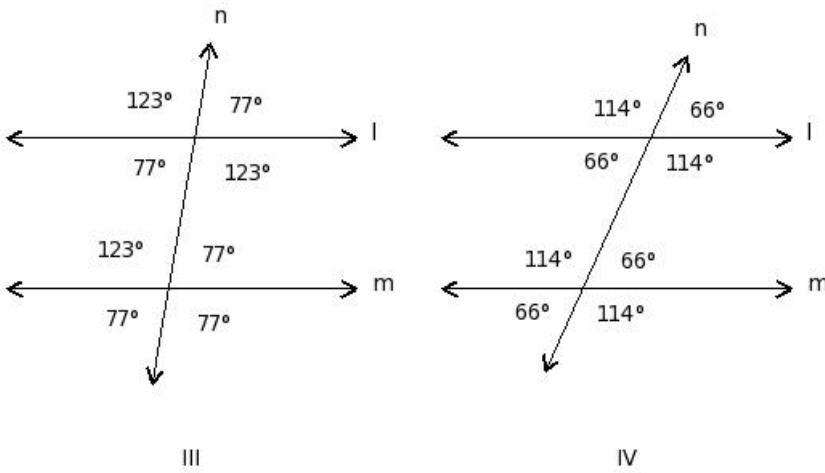
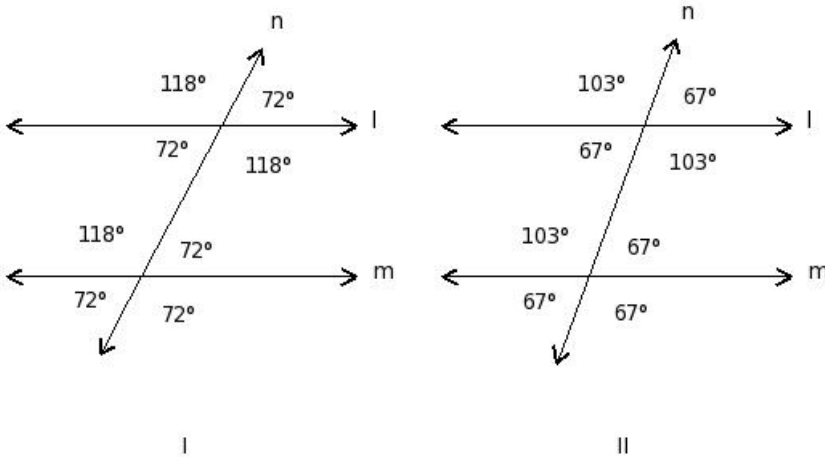
- (i) III (ii) I (iii) IV (iv) II

23. In which of the figures given bellow,  $l \nparallel m$  (not parallel)?



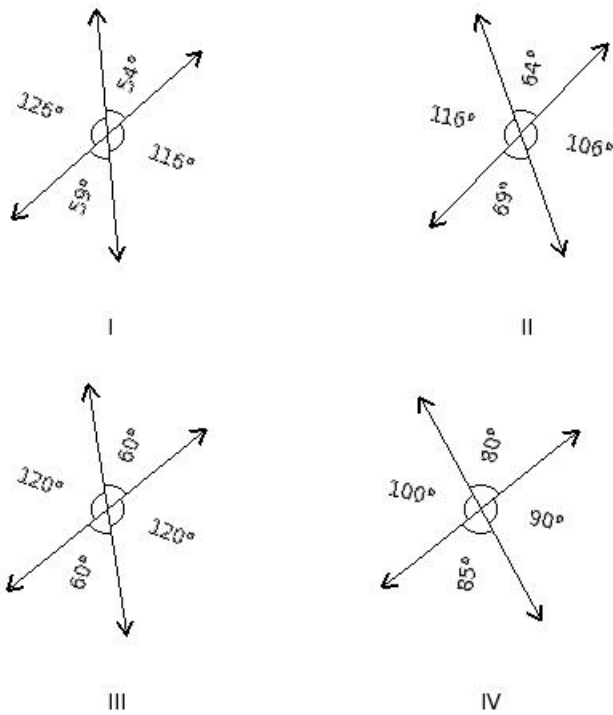
(i) II (ii) III (iii) IV (iv) I

24. If  $l \parallel m$ , which of the given figures is correct?



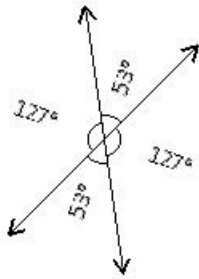
(i) I (ii) III (iii) II (iv) IV

25. Which of the given figures is correct?

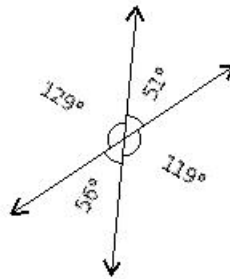


(i) II (ii) IV (iii) I (iv) III

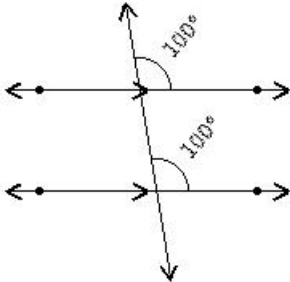
26. Which of the given figures is wrong?



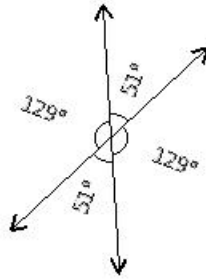
I



II



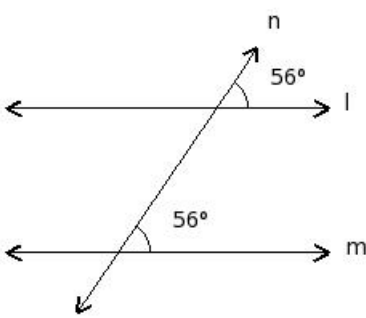
III



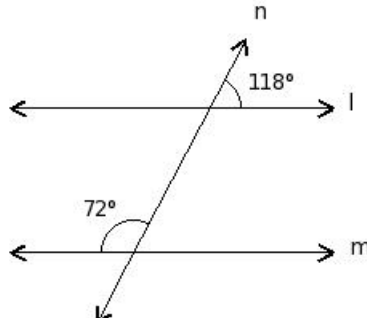
IV

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

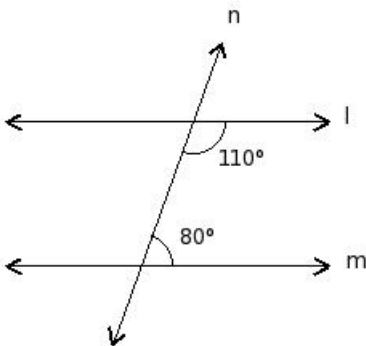
27. In which of the figures given bellow,  $l \parallel m$ ?



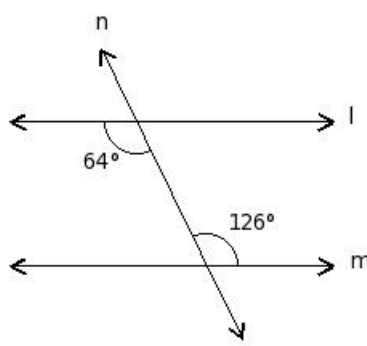
I



II



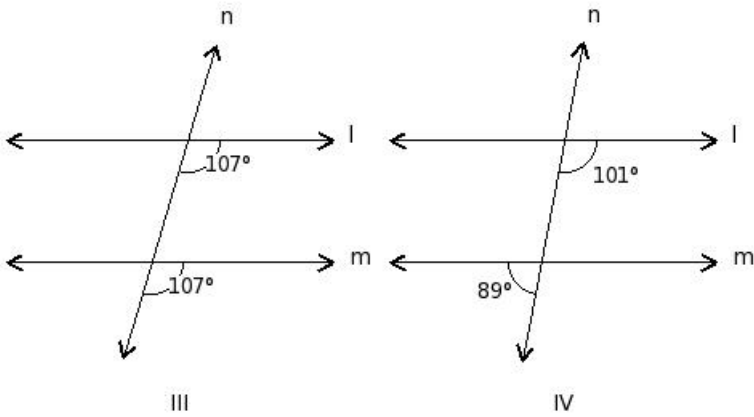
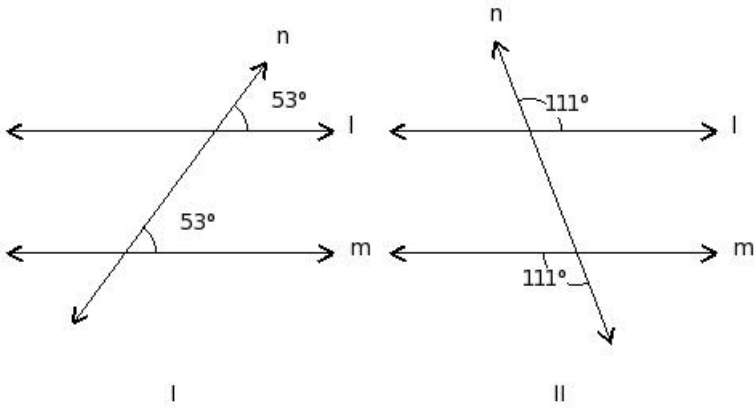
III



IV

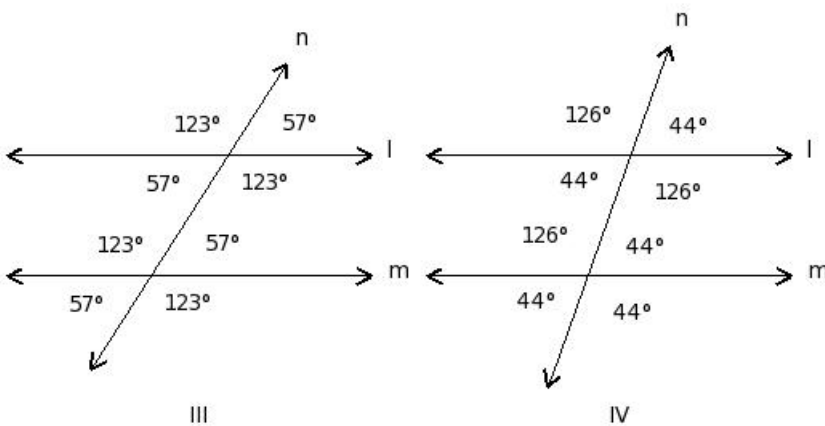
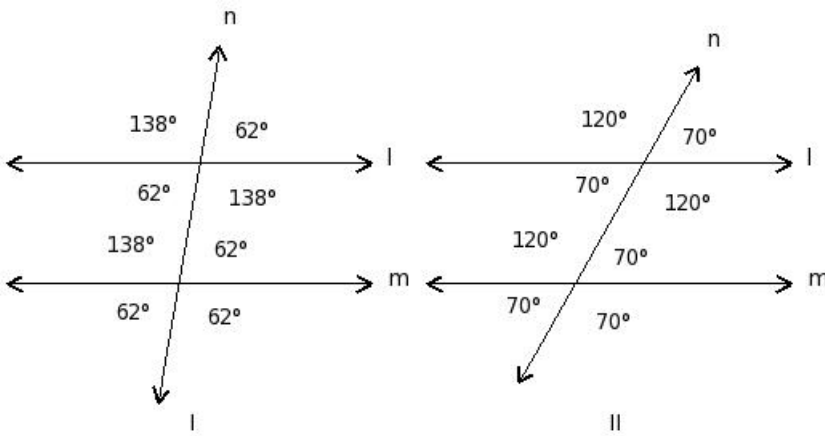
(i) I (ii) III (iii) II (iv) IV

28. In which of the figures given bellow,  $l \nparallel m$  (not parallel)?



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

29. If  $l \parallel m$ , which of the given figures is correct?



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

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**Assignment Key**

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