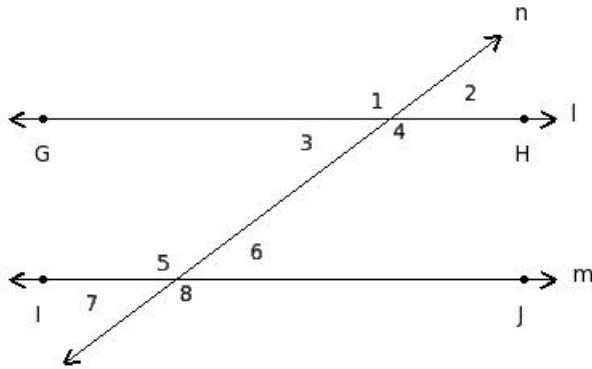


## EduSahara™ Learning Center Assignment

Grade : Class VII, ICSE  
 Chapter : Lines and Angles  
 Name : Parallel Lines and Transversal  
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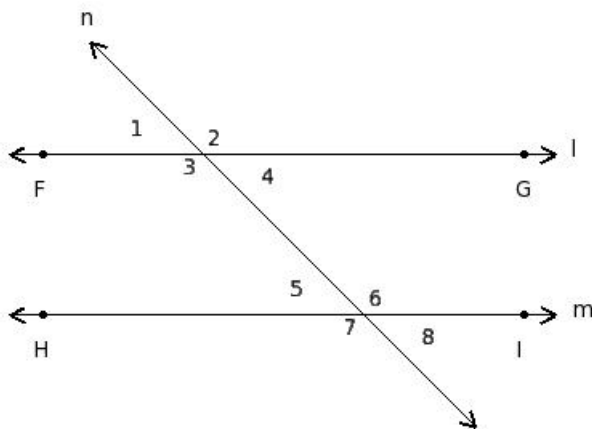
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1. Find the adjacent angles in the given figure



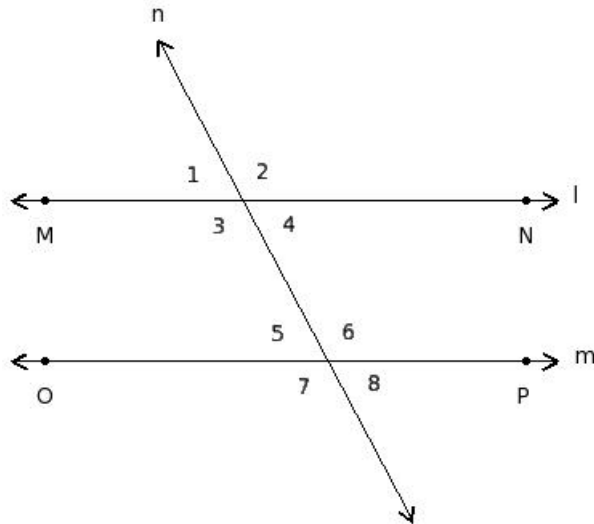
- (i)  $\angle 1, \angle 2$ ;  $\angle 2, \angle 4$ ;  $\angle 4, \angle 3$ ;  $\angle 3, \angle 1$ ;  $\angle 5, \angle 6$ ;  $\angle 6, \angle 8$ ;  $\angle 8, \angle 7$ ;  $\angle 7, \angle 5$
  - (ii)  $\angle 1, \angle 8$ ;  $\angle 2, \angle 7$
  - (iii)  $\angle 3, \angle 5$ ;  $\angle 4, \angle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

2. Find the vertically opposite angles in the given figure



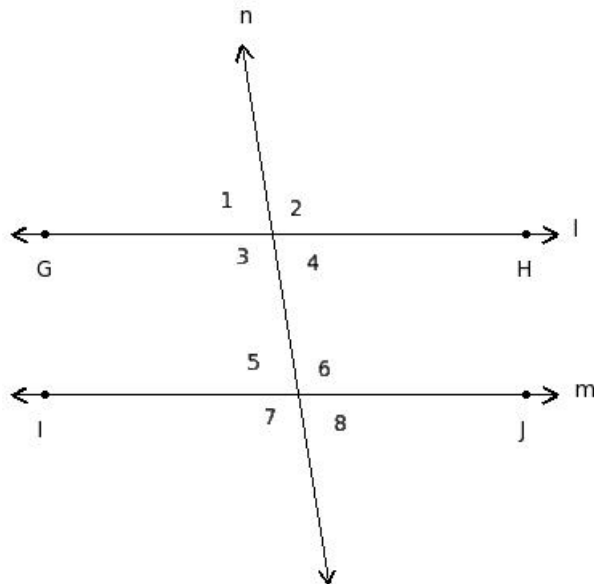
- (i)  $\angle 3, \angle 5$ ;  $\angle 4, \angle 6$
  - (ii)  $\angle 1, \angle 4$ ;  $\angle 2, \angle 3$ ;  $\angle 5, \angle 8$ ;  $\angle 6, \angle 7$
  - (iii)  $\angle 1, \angle 8$ ;  $\angle 2, \angle 7$
  - (iv)  $\angle 1, \angle 2, \angle 7, \angle 8$
  - (v)  $\angle 3, \angle 6$ ;  $\angle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

3. Find the interior angles in the given figure



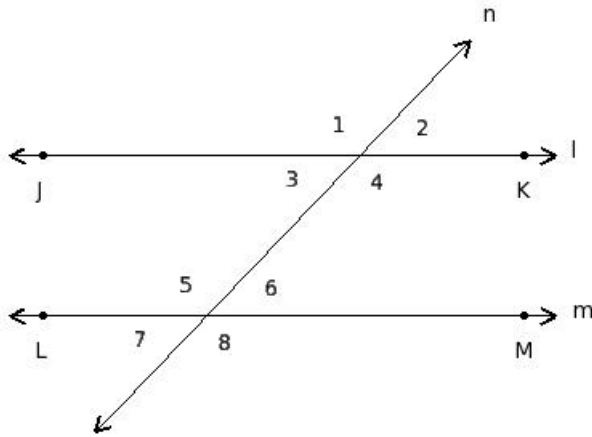
- (i)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (ii)  $\angle 1, \angle 8; \angle 2, \angle 7$
- (iii)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iv)  $\angle 3, \angle 4, \angle 5, \angle 6$
- (v)  $\angle 1, \angle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

4. Find the exterior angles in the given figure



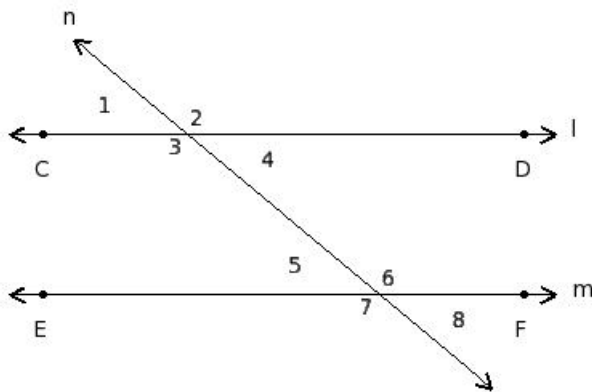
- (i)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii)  $\angle 1, \angle 2, \angle 7, \angle 8$
- (iii)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (iv)  $\angle 3, \angle 4, \angle 5, \angle 6$
- (v)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$

5. Find the interior alternate angles in the given figure



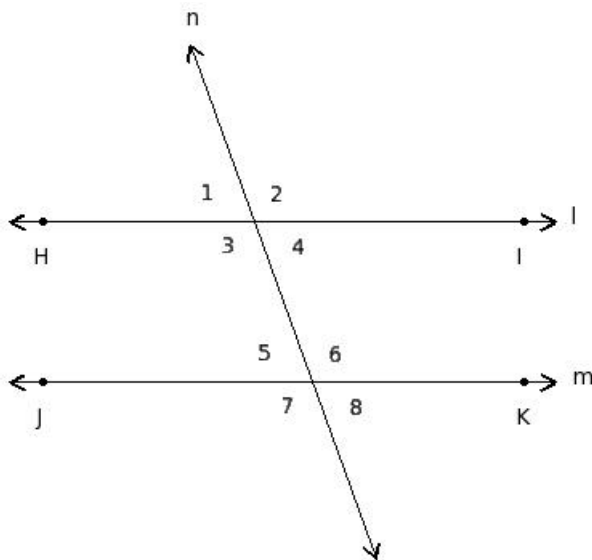
- (i)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (ii)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (iii)  $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6, \angle 8; \angle 8, \angle 7; \angle 7, \angle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

6. Find the exterior alternate angles in the given figure



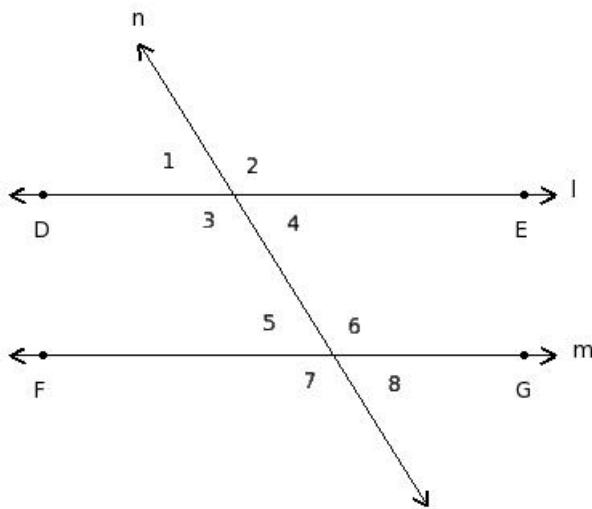
- (i)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii)  $\angle 3, \angle 4, \angle 5, \angle 6$
- (iii)  $\angle 1, \angle 2, \angle 7, \angle 8$
- (iv)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (v)  $\angle 1, \angle 8; \angle 2, \angle 7$

7. Find the corresponding angles in the given figure



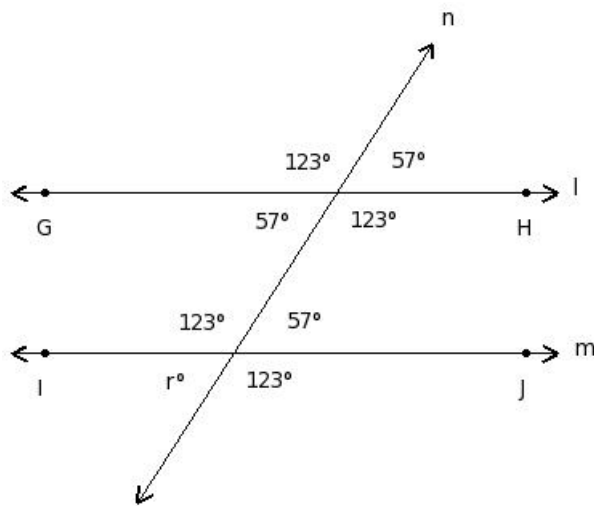
- (i)  $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (ii)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (iii)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (iv)  $\angle 1, \angle 8; \angle 2, \angle 7$
- (v)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle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

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



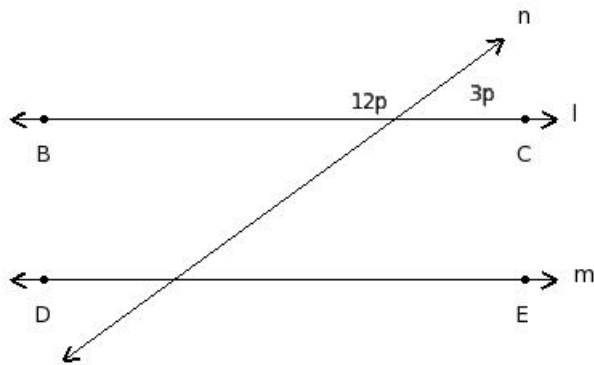
- (i)  $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii)  $\angle 1, \angle 8; \angle 2, \angle 7$
- (iii)  $\angle 3, \angle 6; \angle 4, \angle 5$
- (iv)  $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (v)  $\angle 3, \angle 4, \angle 5, \angle 6$

9. Find the value of 'r'



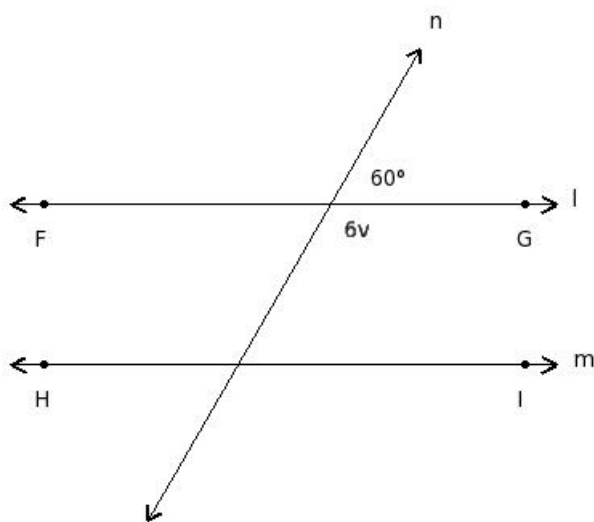
(i)  $62^\circ$  (ii)  $57^\circ$  (iii)  $67^\circ$  (iv)  $72^\circ$  (v)  $87^\circ$

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



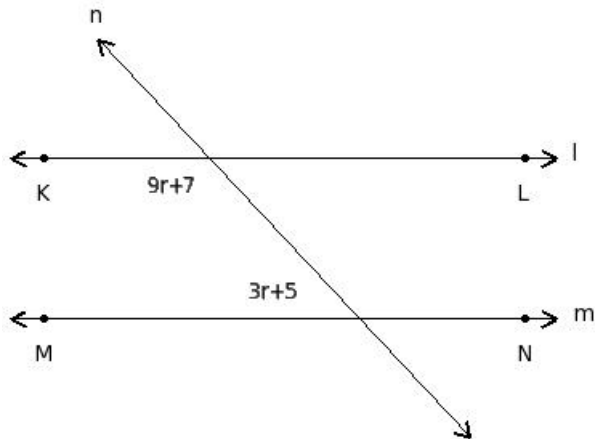
(i) 14 (ii) 12 (iii) 10 (iv) 11 (v) 13

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



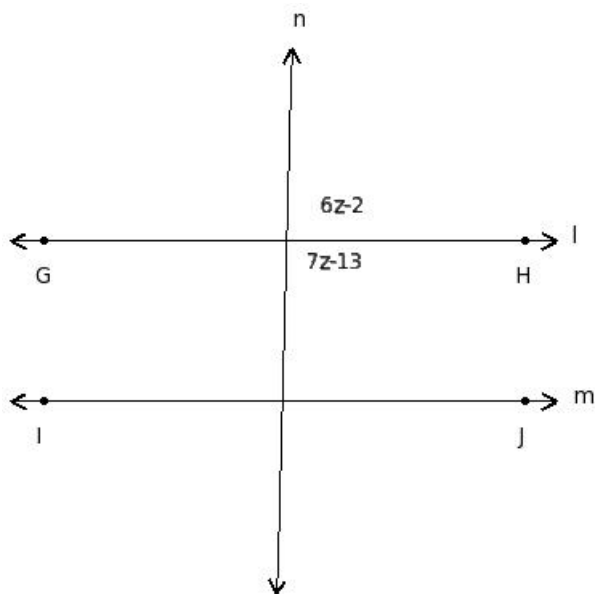
(i) 18 (ii) 21 (iii) 22 (iv) 19 (v) 20

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



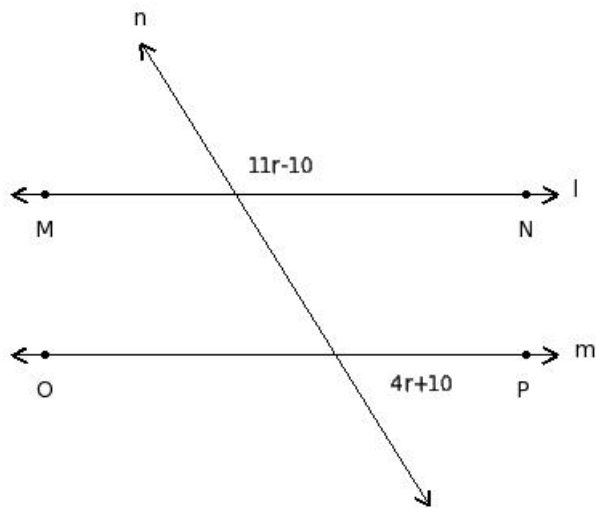
- (i) 13 (ii) 15 (iii) 11 (iv) 17 (v) 14

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



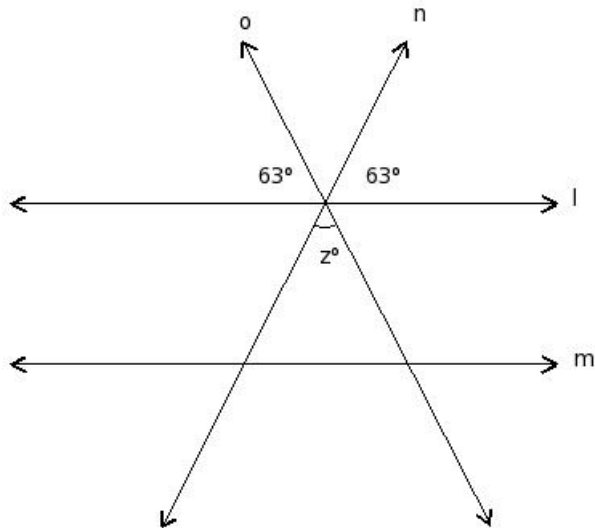
- (i) 14 (ii) 16 (iii) 15 (iv) 12 (v) 17

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



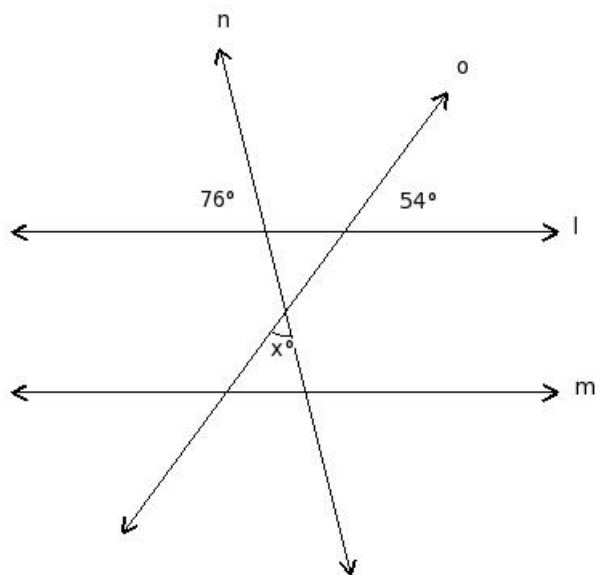
- (i) 15 (ii) 11 (iii) 12 (iv) 13 (v) 9

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



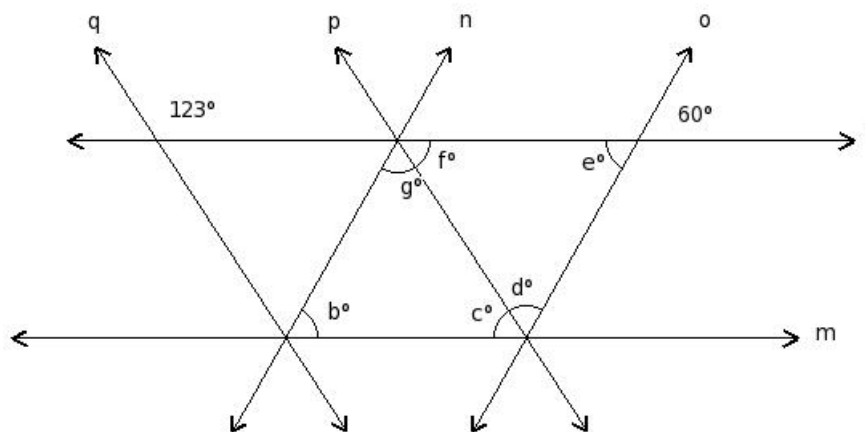
- (i)  $59^\circ$  (ii)  $54^\circ$  (iii)  $64^\circ$  (iv)  $69^\circ$  (v)  $84^\circ$

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



- (i)  $80^\circ$  (ii)  $50^\circ$  (iii)  $55^\circ$  (iv)  $65^\circ$  (v)  $60^\circ$

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



- (i)  $57^\circ, 60^\circ, 60^\circ, 57^\circ, 63^\circ, 63^\circ$   
 (ii)  $57^\circ, 57^\circ, 60^\circ, 63^\circ, 60^\circ, 63^\circ$   
 (iii)  $57^\circ, 63^\circ, 60^\circ, 63^\circ, 60^\circ, 57^\circ$   
 (iv)  $63^\circ, 63^\circ, 57^\circ, 57^\circ, 60^\circ, 60^\circ$   
 (v)  $60^\circ, 57^\circ, 63^\circ, 60^\circ, 57^\circ, 63^\circ$

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

- a) They are adjacent angles
- b) They are in the same side of the transversal
- c) Both are interior angles
- d) They are not adjacent angles
- e) They are on either side of the transversal

f) One is interior angle and the other is exterior

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

19. 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 adjacent angles
- d) Both are interior angles
- e) They are on either side of the transversal
- f) One is interior angle and the other is exterior angle

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

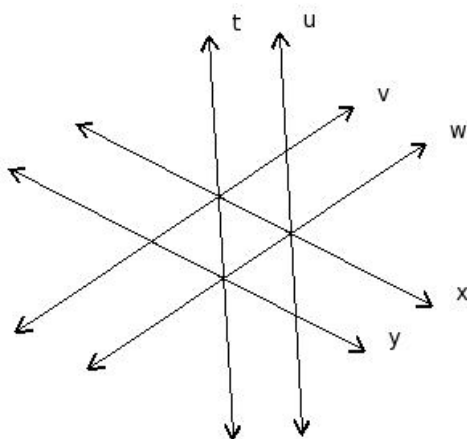
20. Which of the following are true?

- a) If  $n \perp o$  and  $o \perp p$ , then  $n \perp p$
- b) If  $n \perp o$  and  $n \perp p$ , then  $o \perp p$
- c) If two lines are parallel to the same line, then they are parallel to each other
- d) If two lines are parallel to the same line, then they are perpendicular to each other
- e) If  $n \parallel o$  and  $o \parallel p$ , then  $n \parallel p$

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

21. In the given figure,  $t, u, v, w, x, y$  are lines in a plane. By looking at the figure, which of the following are true?

- a)  $t$  is the transversal of  $v$  &  $x$
- b)  $x$  is the transversal of  $v$  &  $w$
- c)  $t \parallel w$
- d)  $t \parallel u$
- e)  $w$  is the transversal of  $t$  &  $u$
- f)  $y$  is the transversal of  $v$  &  $t$



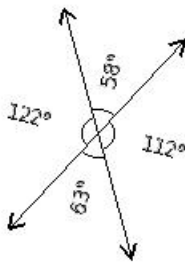
(i) {c,d} (ii) {a,b} (iii) {b,d,e,f} (iv) {a,c,e} (v) {a,f,b}

22. Which of the following are true with respect to lines  $s, t, u, v$  where  $s \parallel t, t \perp u, u \perp v$ ?

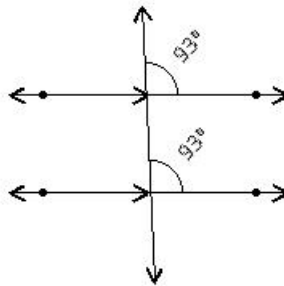
- a)  $u \parallel v$
- b)  $t \parallel v$
- c)  $s \parallel v$
- d)  $s \parallel u$
- e)  $s \perp v$

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

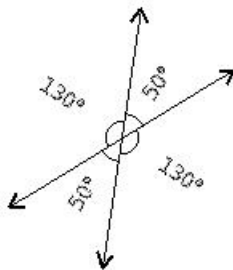
23. Which of the given figures is wrong?



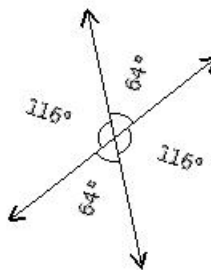
I



II



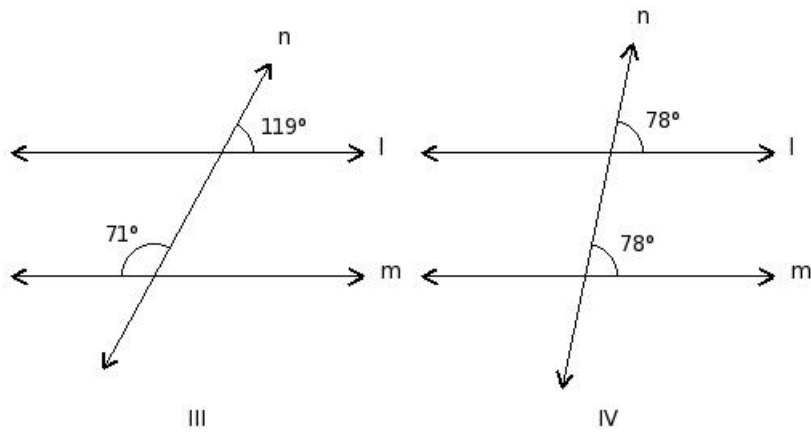
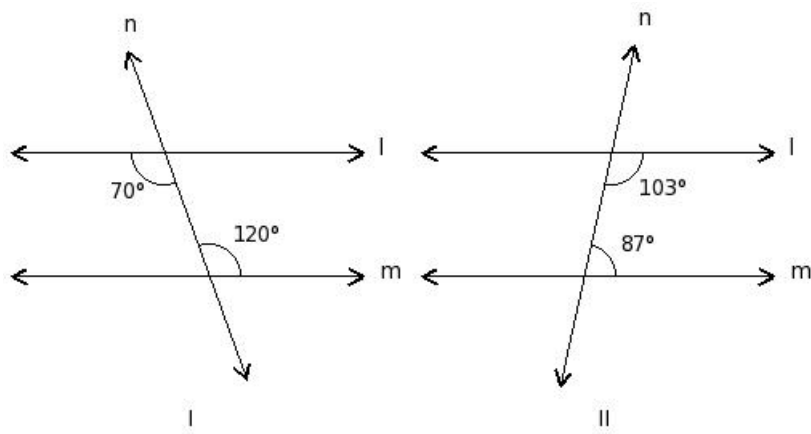
III



IV

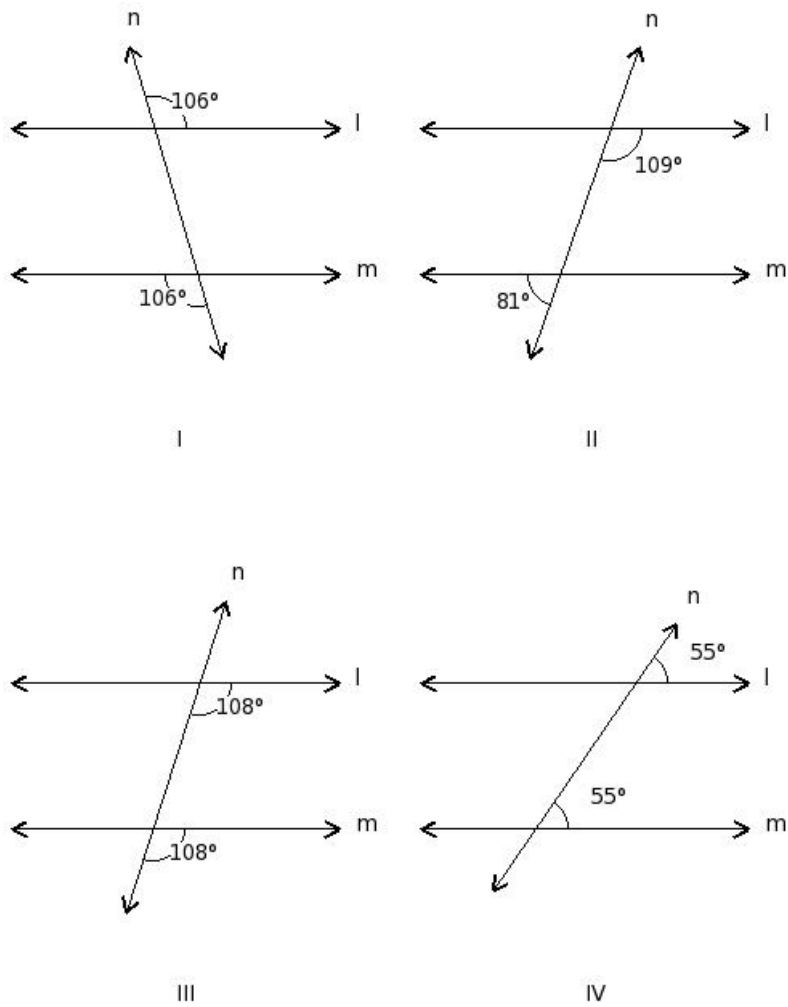
(i) I (ii) III (iii) IV (iv) II

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



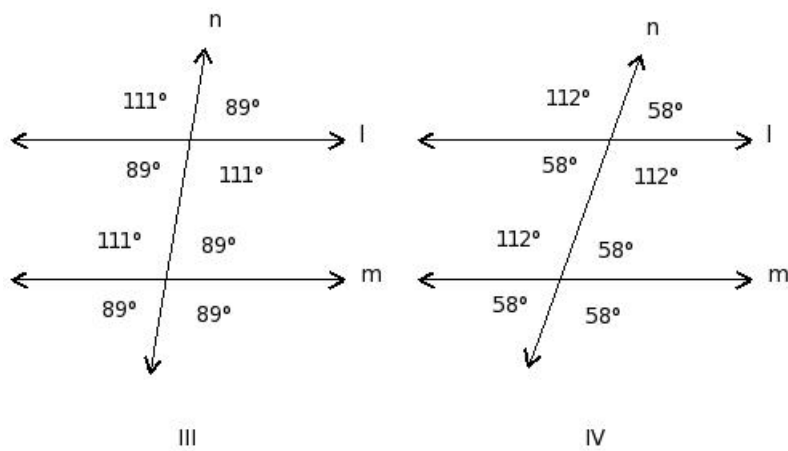
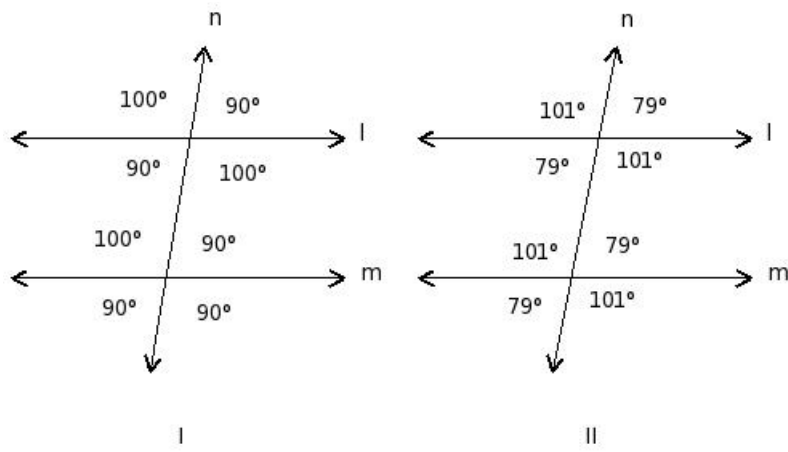
(i) III (ii) I (iii) IV (iv) II

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



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

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



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

## Assignment Key

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