

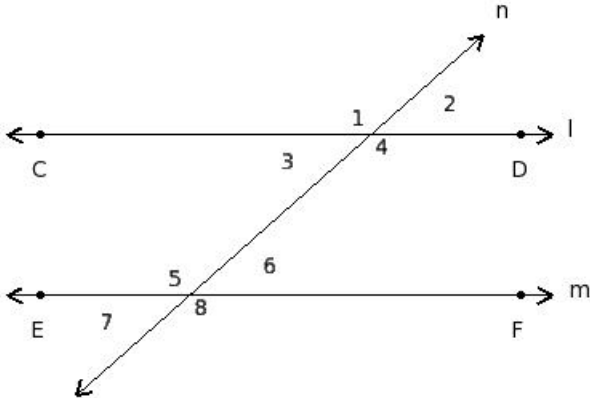
EduSahara™ Learning Center Assignment

Grade : Class IX, SSC

Chapter : Lines and Angles

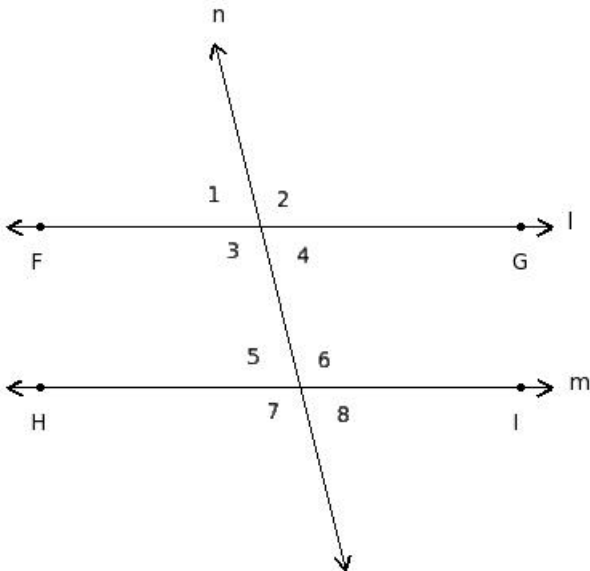
Name : Parallel Lines and Transversal

1. Find the adjacent angles in the given figure



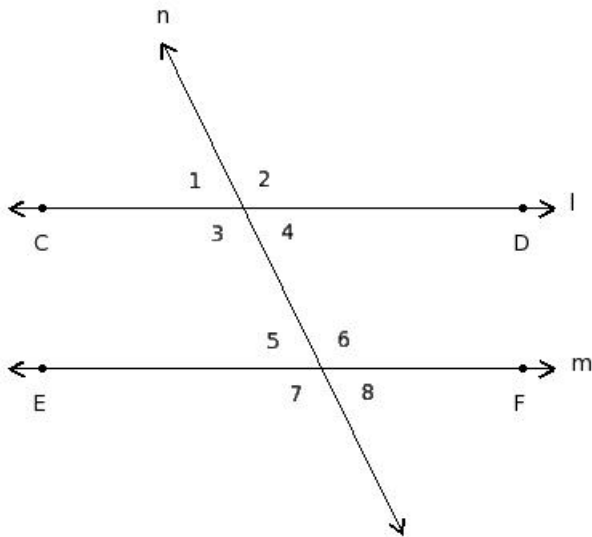
- (i) $\angle 3, \angle 6; \angle 4, \angle 5$
- (ii) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6, \angle 8; \angle 8, \angle 7; \angle 7, \angle 5$
- (iii) $\angle 3, \angle 4, \angle 5, \angle 6$
- (iv) $\angle 3, \angle 5; \angle 4,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



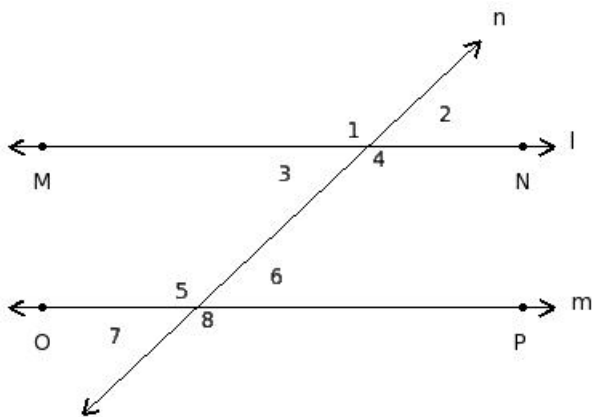
- (i) $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii) $\angle 3, \angle 4, \angle 5, \angle 6$
- (iii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iv) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6,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

3. Find the interior angles in the given figure



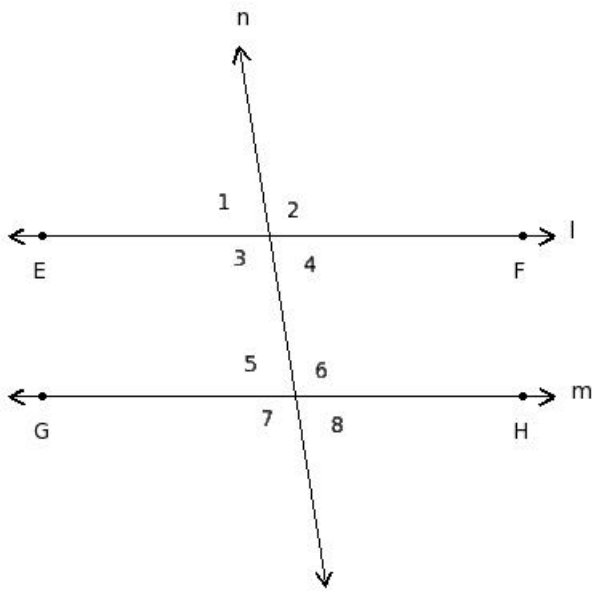
- (i) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (ii) $\angle 3, \angle 6; \angle 4, \angle 5$
- (iii) $\angle 1, \angle 2, \angle 7, \angle 8$
- (iv) $\angle 3, \angle 4, \angle 5, \angle 6$
- (v) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle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

4. Find the exterior angles in the given figure



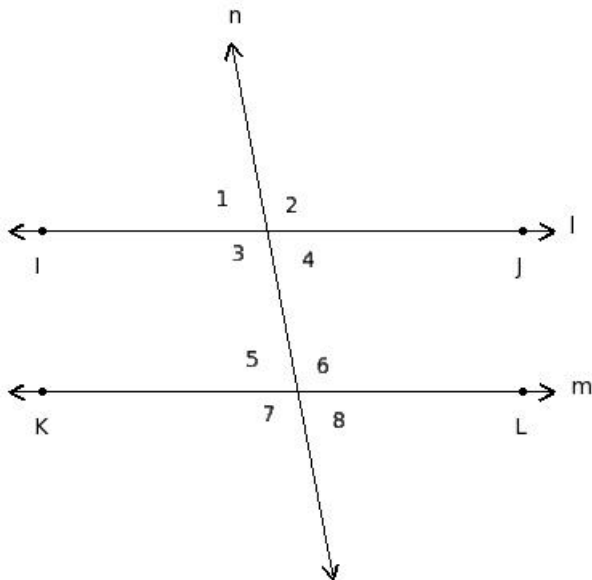
- (i) $\angle 1, \angle 2, \angle 7, \angle 8$
- (ii) $\angle 3, \angle 5; \angle 4, \angle 6$
- (iii) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6, \angle 8; \angle 8, \angle 7; \angle 7, \angle 5$
- (iv) $\angle 1, \angle 4; \angle 2,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

5. Find the interior alternate angles in the given figure



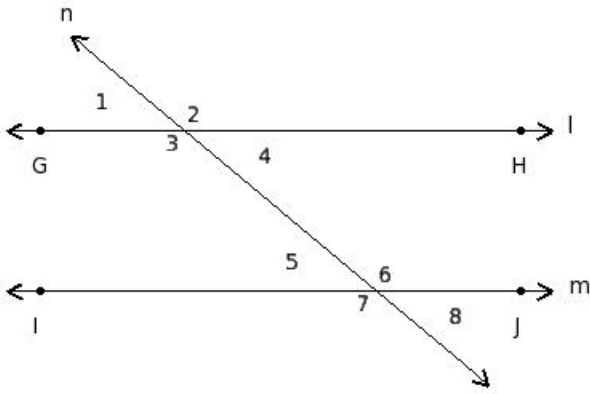
- (i) $\angle 1, \angle 2, \angle 7, \angle 8$
- (ii) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (iii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iv) $\angle 3, \angle 6; \angle 4, \angle 5$
- (v) $\angle 1, \angle 8; \angle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

6. Find the exterior alternate angles in the given figure



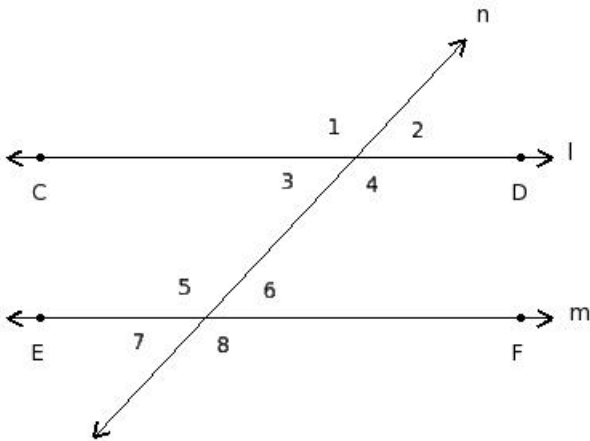
- (i) $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii) $\angle 3, \angle 6; \angle 4, \angle 5$
- (iii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iv) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle 3, \angle 1; \angle 5, \angle 6; \angle 6,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

7. Find the corresponding angles in the given figure



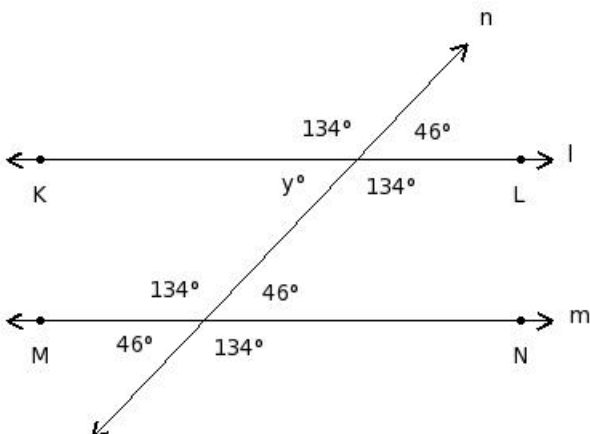
- (i) $\angle 3, \angle 6; \angle 4, \angle 5$
- (ii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iii) $\angle 1, \angle 8; \angle 2, \angle 7$
- (iv) $\angle 1, \angle 2, \angle 7, \angle 8$
- (v) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle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

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



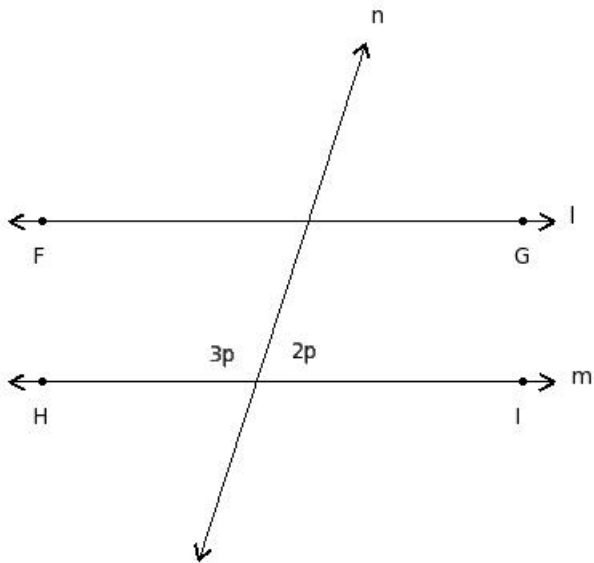
- (i) $\angle 3, \angle 5; \angle 4, \angle 6$
- (ii) $\angle 3, \angle 4, \angle 5, \angle 6$
- (iii) $\angle 1, \angle 8; \angle 2, \angle 7$
- (iv) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (v) $\angle 1, \angle 2; \angle 2, \angle 4; \angle 4, \angle 3; \angle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

9. Find the value of 'y'



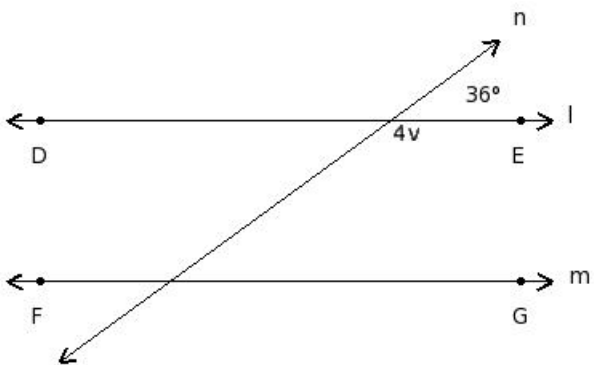
(i) 76° (ii) 61° (iii) 56° (iv) 46° (v) 51°

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



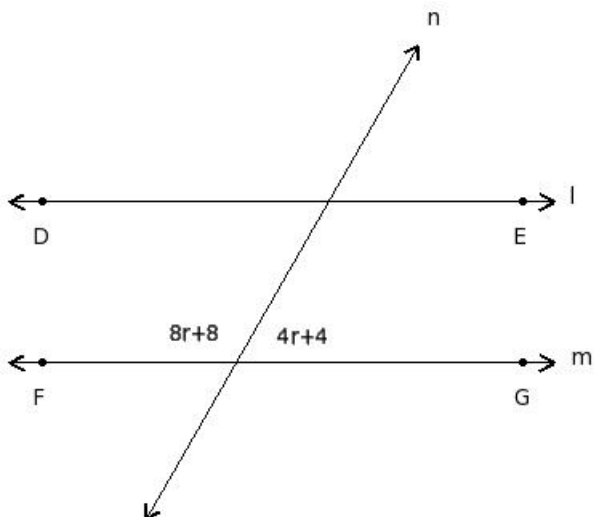
(i) 37 (ii) 35 (iii) 36 (iv) 33 (v) 39

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



(i) 36 (ii) 33 (iii) 37 (iv) 35 (v) 39

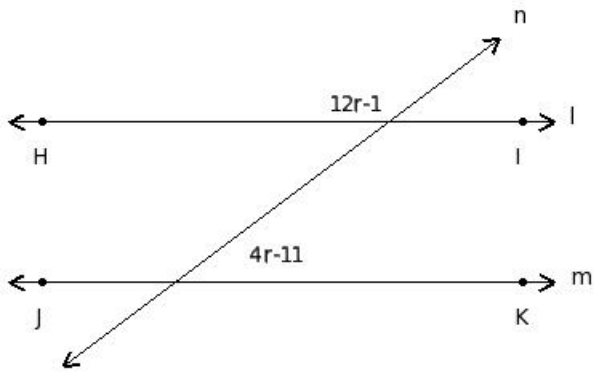
12. In the given figure $l \parallel m$. Find the value of 'r'



(i) 14 (ii) 15 (iii) 13 (iv) 16 (v) 12

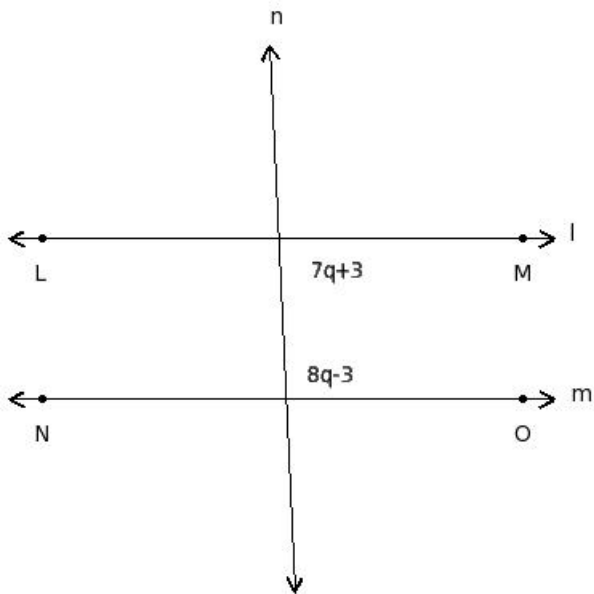
13.

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



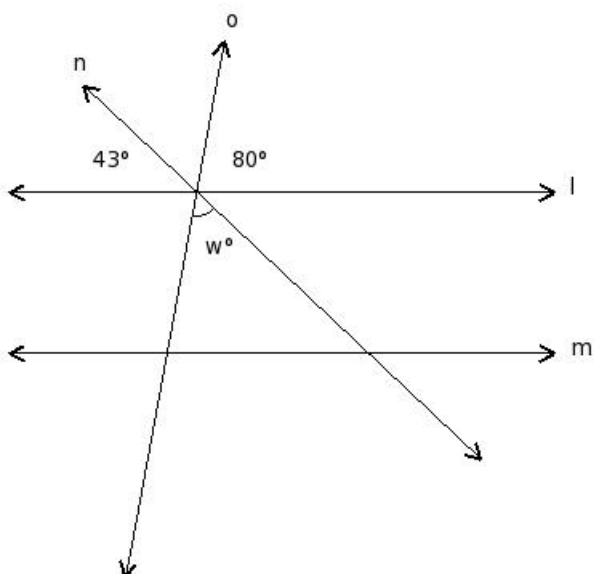
- (i) 10 (ii) 12 (iii) 11 (iv) 13 (v) 14

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



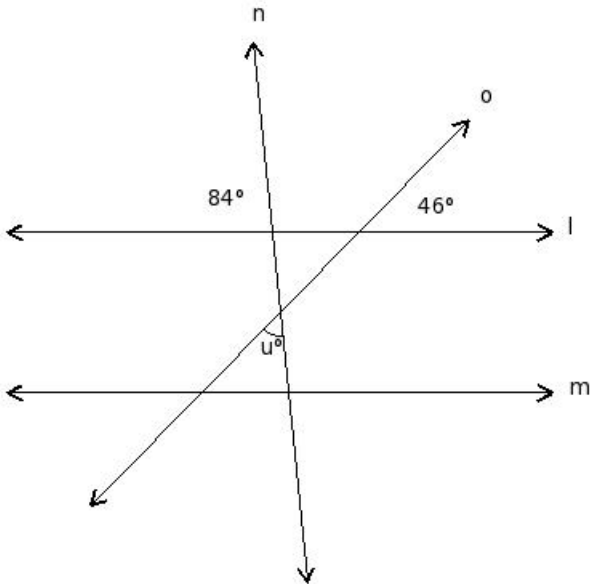
- (i) 11 (ii) 10 (iii) 14 (iv) 12 (v) 13

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



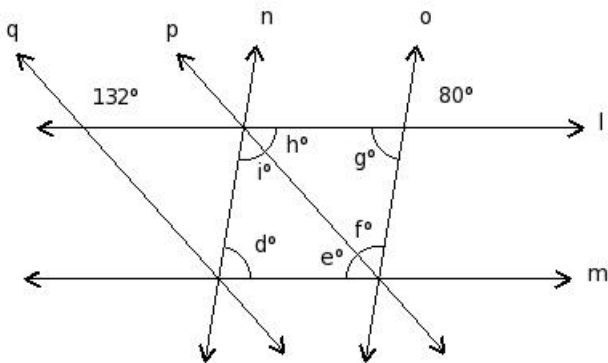
- (i) 57° (ii) 67° (iii) 62° (iv) 87° (v) 72°

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



- (i) 55° (ii) 60° (iii) 50° (iv) 80° (v) 65°

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



- (i) $80^\circ, 52^\circ, 48^\circ, 80^\circ, 48^\circ, 52^\circ$
 (ii) $80^\circ, 48^\circ, 52^\circ, 80^\circ, 48^\circ, 52^\circ$
 (iii) $52^\circ, 80^\circ, 48^\circ, 52^\circ, 48^\circ, 80^\circ$
 (iv) $52^\circ, 80^\circ, 52^\circ, 48^\circ, 48^\circ, 80^\circ$
 (v) $48^\circ, 48^\circ, 52^\circ, 52^\circ, 80^\circ, 80^\circ$

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

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

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

- a) They are on the same side of the transversal

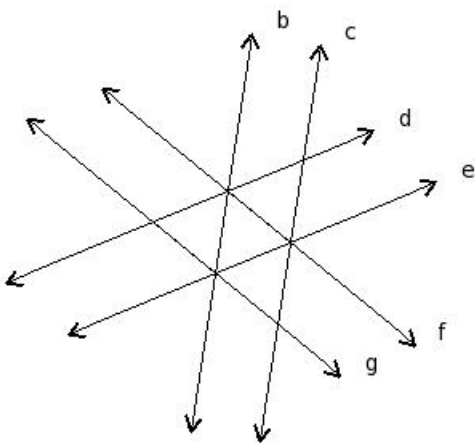
- b) One is interior angle and the other is exterior angle
 - c) They are on either side of the transversal
 - d) They are not adjacent angles
 - e) They are adjacent angles
 - f) Both are interior angles
- (i) {a,b,d} (ii) {f,c,d} (iii) {c,a} (iv) {e,a,b} (v) {e,b}

20. 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 $l \perp m$ and $l \perp n$, then $m \perp n$
 - c) If $l \parallel m$ and $m \parallel n$, then $l \parallel n$
 - d) If $l \perp m$ and $m \perp n$, then $l \perp n$
 - e) If two lines are parallel to the same line, then they are perpendicular to each other
- (i) {a,c} (ii) {d,c} (iii) {d,c,a} (iv) {b,a} (v) {e,b,a}

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

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

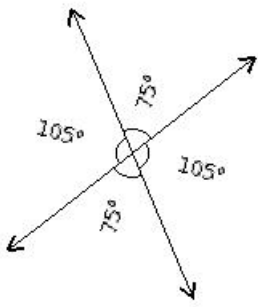


- (i) {f,b} (ii) {a,b,c,d} (iii) {e,d,a} (iv) {e,a} (v) {e,f,c}

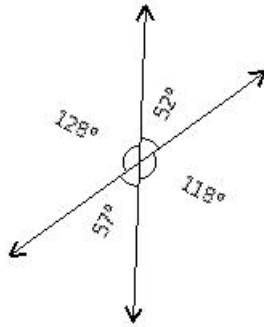
22. Which of the following are true with respect to lines d, e, f, g where $d \parallel e$, $e \perp f$, $f \perp g$?

- a) $d \parallel f$
 - b) $d \parallel g$
 - c) $e \parallel g$
 - d) $f \parallel g$
 - e) $d \perp g$
- (i) {b,c} (ii) {a,b} (iii) {d,c} (iv) {d,c,b} (v) {e,a,b}

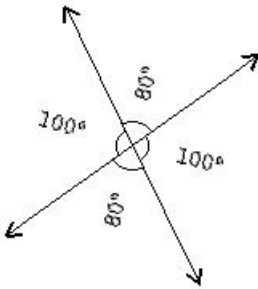
23. Which of the given figures is wrong?



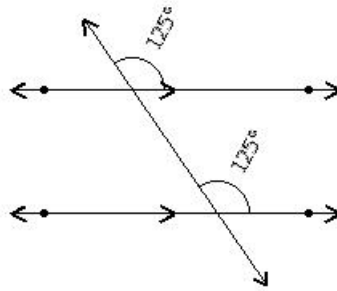
I



II



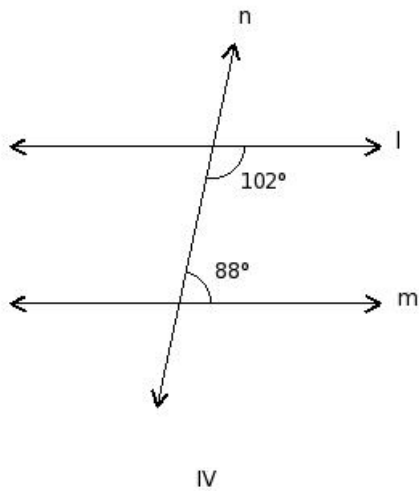
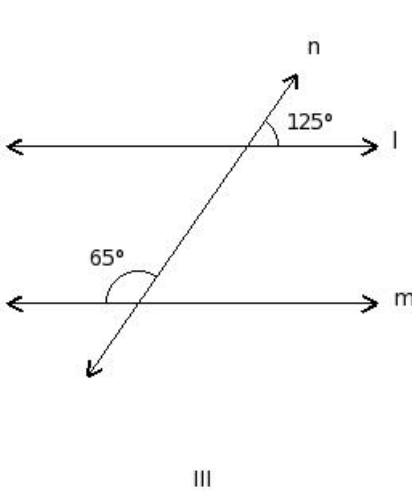
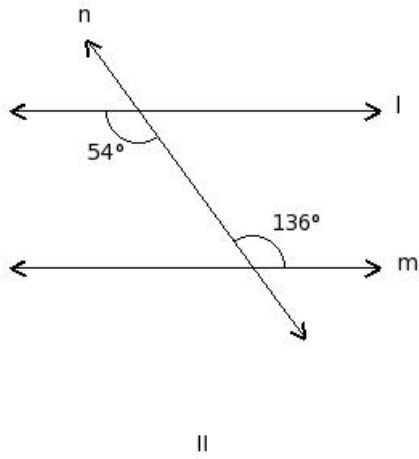
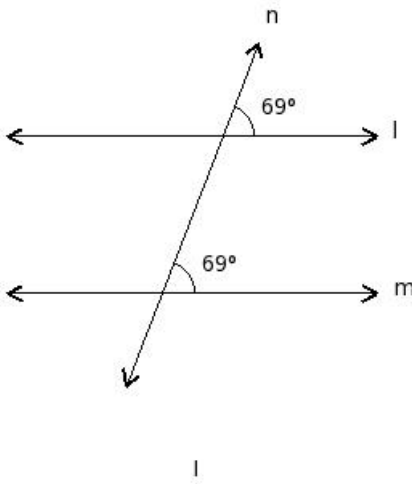
III



IV

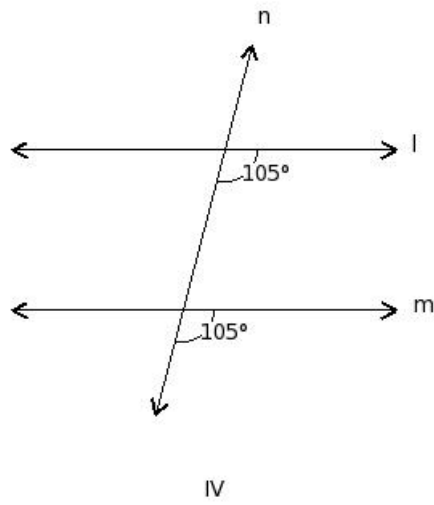
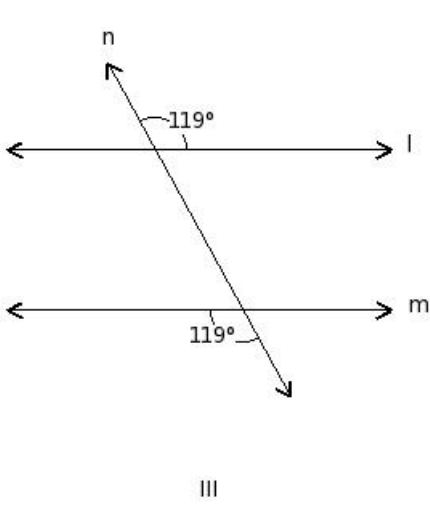
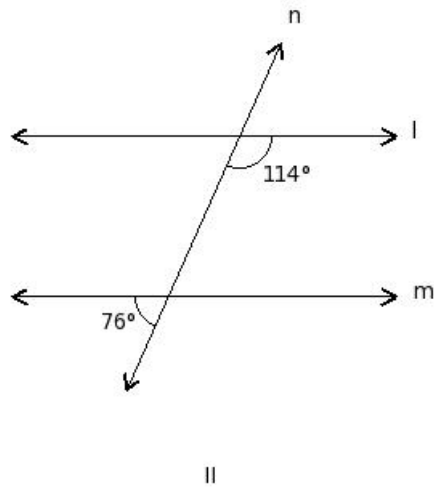
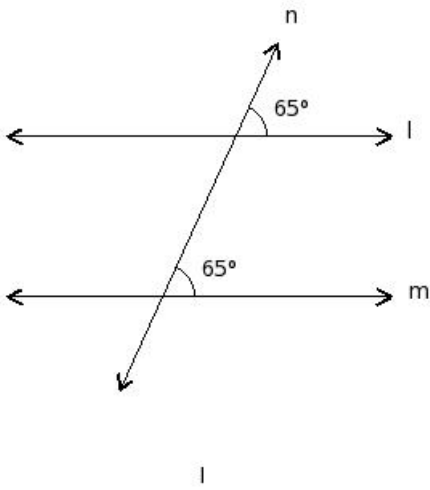
(i) II (ii) I (iii) III (iv) IV

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



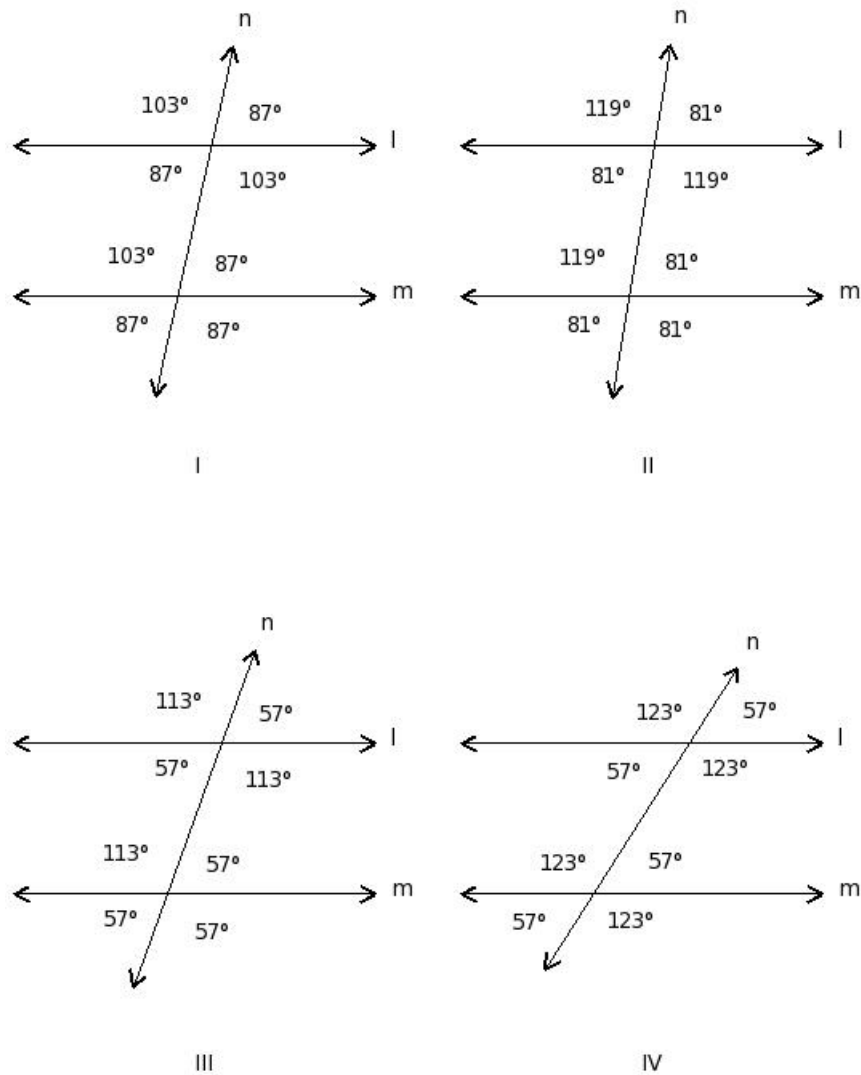
(i) IV (ii) I (iii) III (iv) II

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



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

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



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

Assignment Key

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