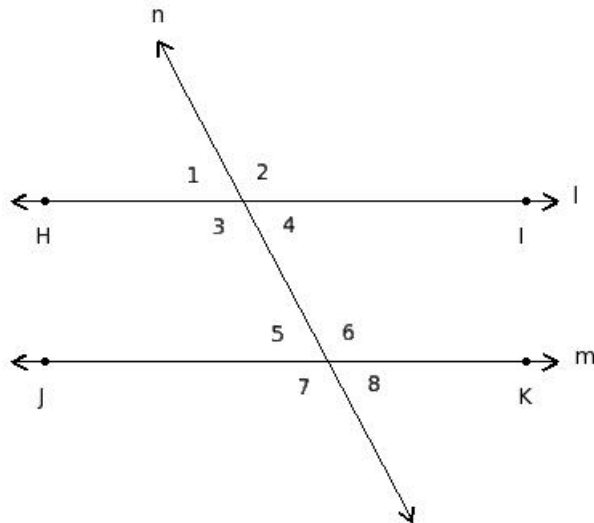


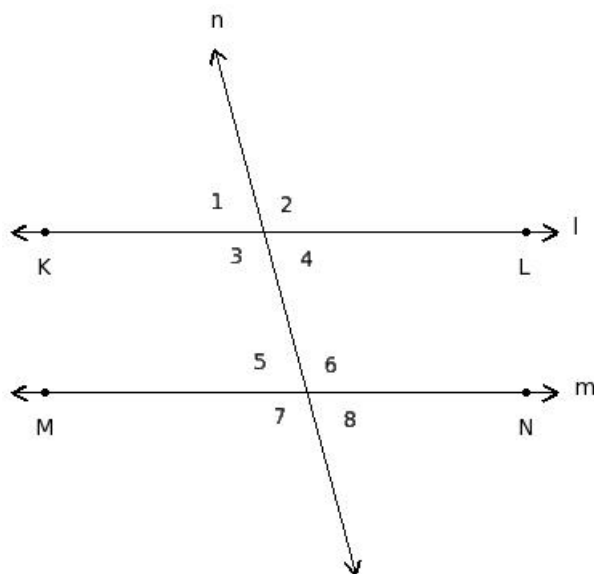
EduSahara™ Learning Center Assignment**Grade : Class VI, ICSE****Chapter : Parallel Lines****Name : Parallel Lines and Transversal****Licensed To : Teachers and Students for non-commercial use**

1. Find the adjacent angles in the given figure



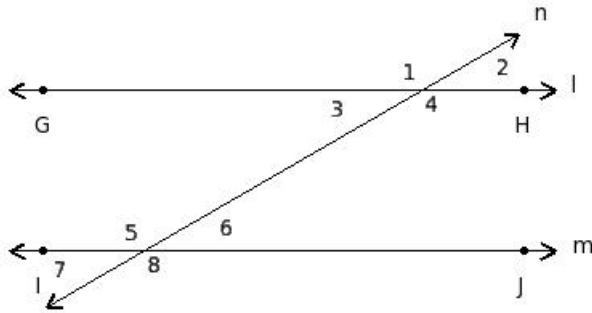
- (i) $\angle 1, \angle 2$; $\angle 2, \angle 4$; $\angle 4, \angle 3$; $\angle 3, \angle 1$; $\angle 5, \angle 6$; $\angle 6, \angle 8$; $\angle 8, \angle 7$; $\angle 7, \angle 5$
- (ii) $\angle 1, \angle 2, \angle 7, \angle 8$
- (iii) $\angle 3, \angle 4, \angle 5, \angle 6$
- (iv) $\angle 1, \angle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

2. Find the vertically opposite angles in the given figure



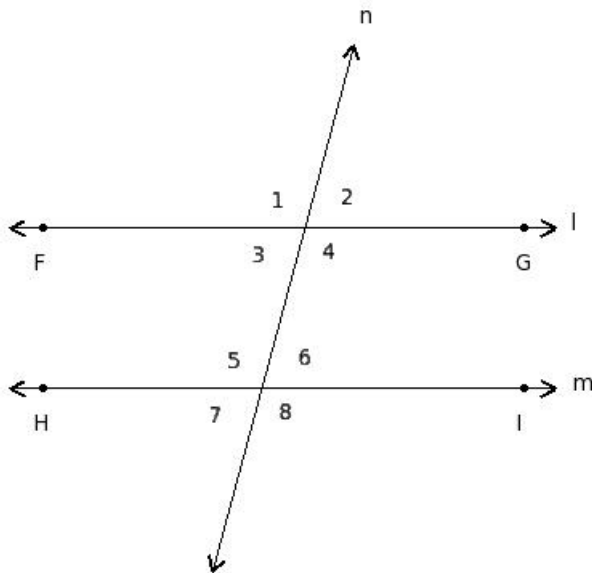
- (i) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (ii) $\angle 3, \angle 5; \angle 4, \angle 6$
- (iii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
- (iv) $\angle 3, \angle 4, \angle 5, \angle 6$
- (v) $\angle 1, \angle 2; \angle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

3. Find the interior angles in the given figure



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

4. Find the exterior angles in the given figure

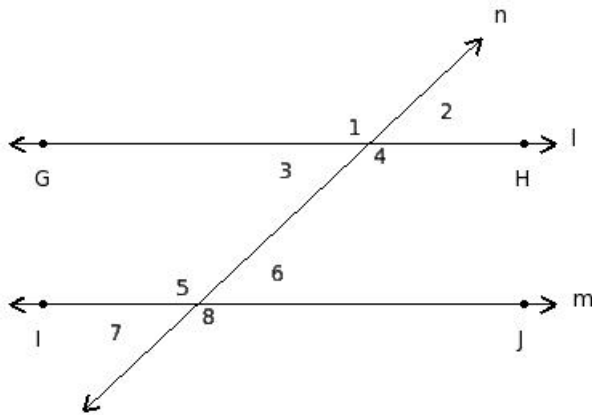


- (i) $\angle 3, \angle 6; \angle 4, \angle 5$
- (ii) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
- (iii) $\angle 1, \angle 8; \angle 2, \angle 7$

(iv) $\angle 1, \angle 2, \angle 7, \angle 8$

(v) $\angle 3, \angle 4, \angle 5, \angle 6$

5. Find the interior alternate angles in the given figure



(i) $\angle 3, \angle 5; \angle 4, \angle 6$

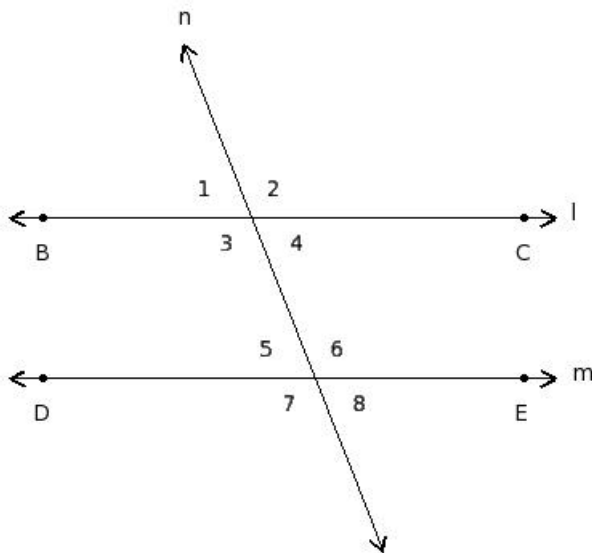
(ii) $\angle 3, \angle 6; \angle 4, \angle 5$

(iii) $\angle 1, \angle 2, \angle 7, \angle 8$

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

(v) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$

6. Find the exterior alternate angles in the given figure



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

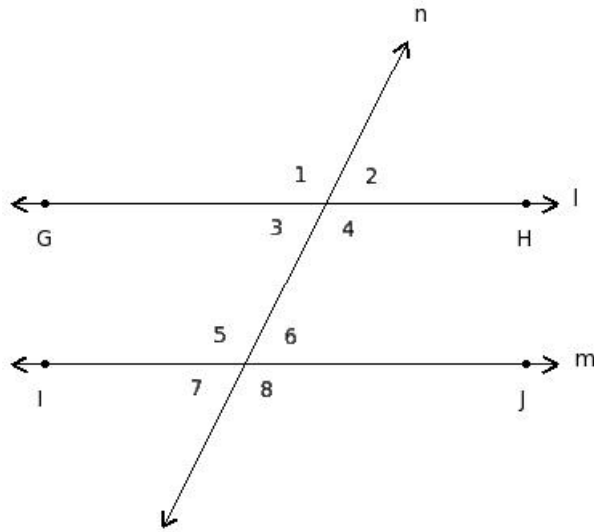
(ii) $\angle 3, \angle 5; \angle 4, \angle 6$

(iii) $\angle 3, \angle 4, \angle 5, \angle 6$

(iv) $\angle 1, \angle 8; \angle 2, \angle 7$

(v) $\angle 3, \angle 6$; $\angle 4, \angle 5$

7. Find the corresponding angles in the given figure



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

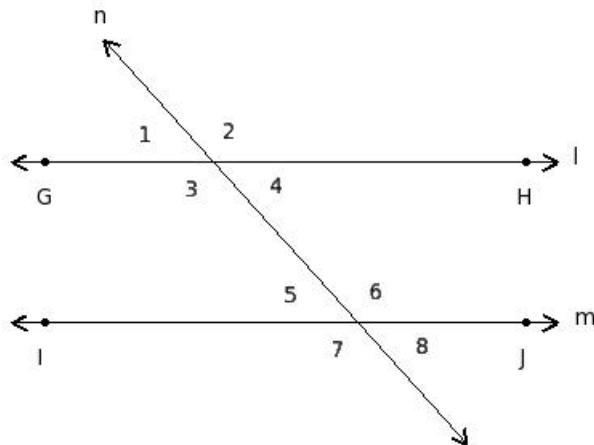
(ii) $\angle 1, \angle 5$; $\angle 2, \angle 6$; $\angle 3, \angle 7$; $\angle 4, \angle 8$

(iii) $\angle 1, \angle 8$; $\angle 2, \angle 7$

(iv) $\angle 3, \angle 5$; $\angle 4, \angle 6$

(v) $\angle 3, \angle 4, \angle 5, \angle 6$

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



(i) $\angle 3, \angle 5$; $\angle 4, \angle 6$

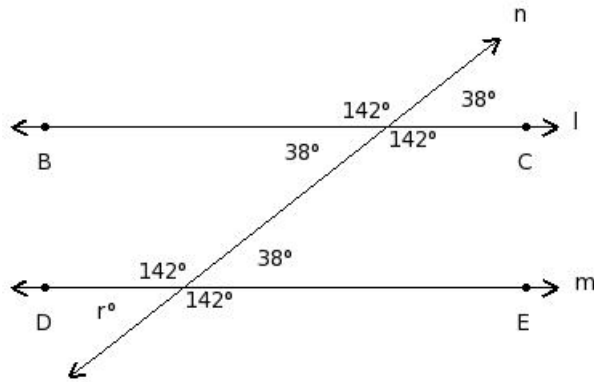
(ii) $\angle 1, \angle 5$; $\angle 2, \angle 6$; $\angle 3, \angle 7$; $\angle 4, \angle 8$

(iii) $\angle 1, \angle 8$; $\angle 2, \angle 7$

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

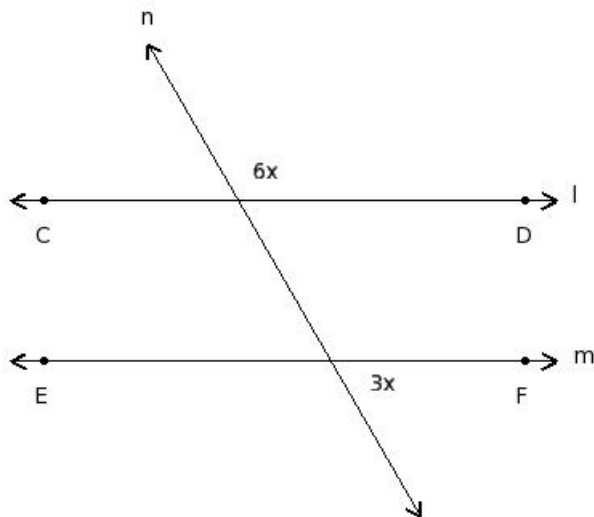
(v) $\angle 3, \angle 4, \angle 5, \angle 6$

9. Find the value of 'r'



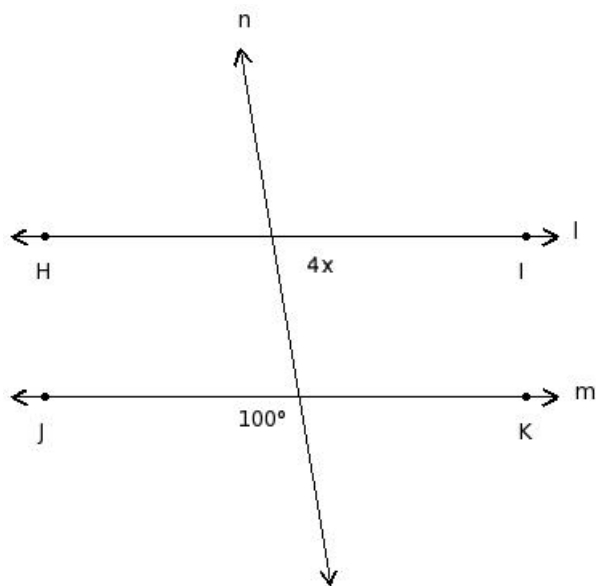
- (i) 38° (ii) 43° (iii) 68° (iv) 53° (v) 48°

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



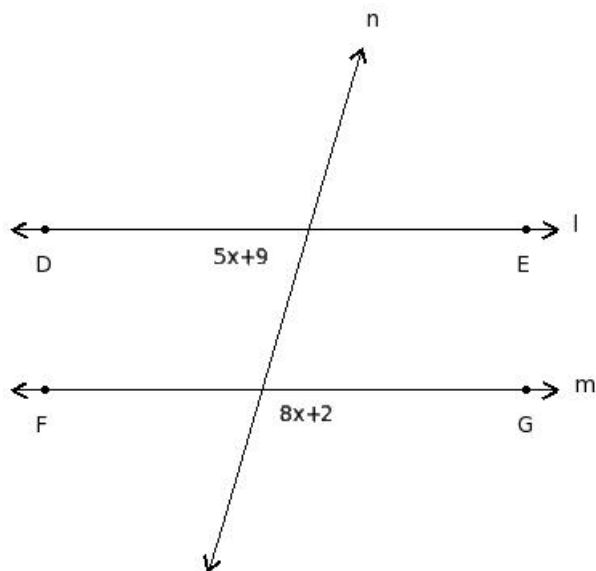
- (i) 22 (ii) 17 (iii) 19 (iv) 21 (v) 20

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



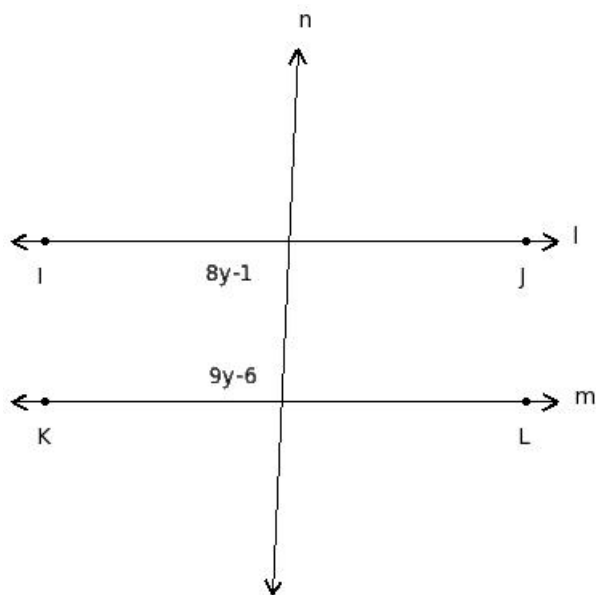
(i) 17 (ii) 21 (iii) 22 (iv) 20 (v) 19

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



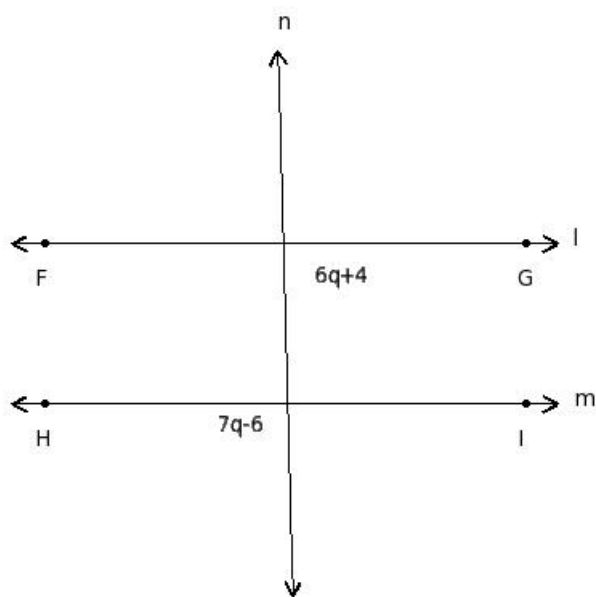
(i) 12 (ii) 13 (iii) 14 (iv) 16 (v) 10

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



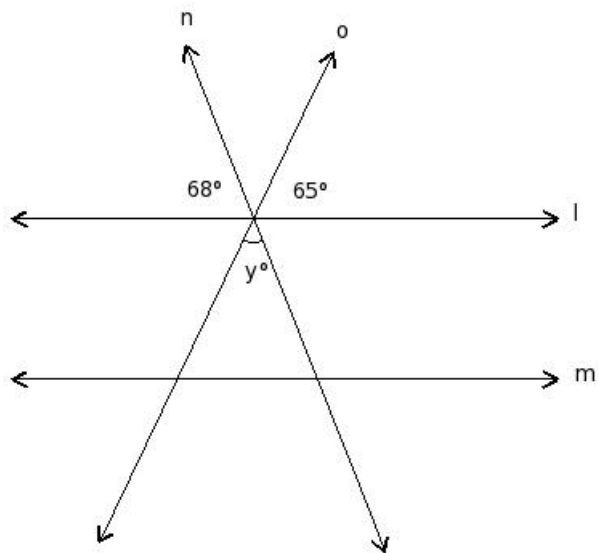
- (i) 8 (ii) 11 (iii) 12 (iv) 10 (v) 14

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



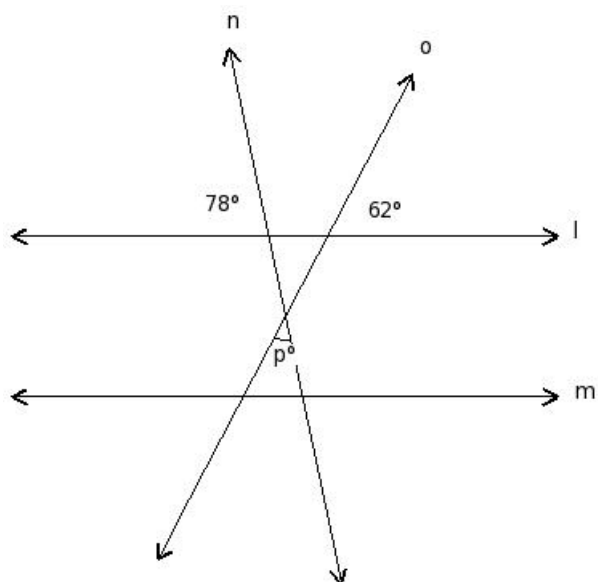
- (i) 14 (ii) 12 (iii) 17 (iv) 15 (v) 13

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



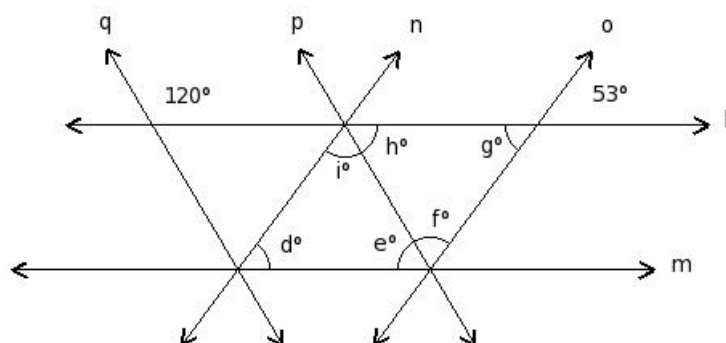
- (i) 77° (ii) 62° (iii) 57° (iv) 47° (v) 52°

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



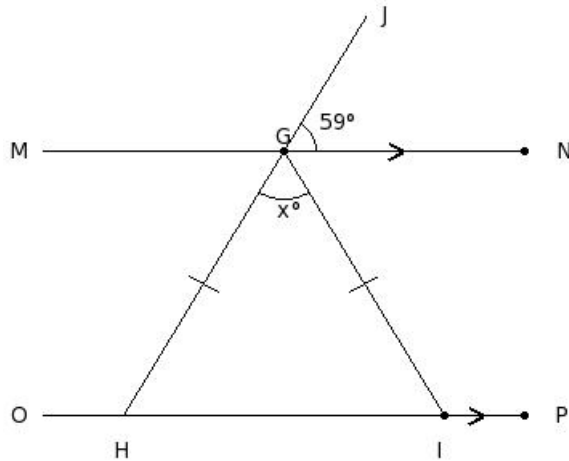
- (i) 50° (ii) 55° (iii) 40° (iv) 45° (v) 70°

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



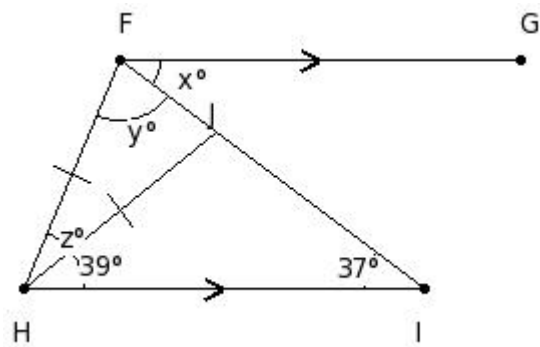
- (i) $53^\circ, 60^\circ, 67^\circ, 53^\circ, 60^\circ, 67^\circ$
- (ii) $53^\circ, 60^\circ, 67^\circ, 67^\circ, 53^\circ, 60^\circ$
- (iii) $67^\circ, 53^\circ, 67^\circ, 53^\circ, 60^\circ, 60^\circ$
- (iv) $67^\circ, 60^\circ, 53^\circ, 60^\circ, 53^\circ, 67^\circ$
- (v) $67^\circ, 53^\circ, 53^\circ, 60^\circ, 67^\circ, 60^\circ$

18. In the given figure, $MN \parallel OP$, $\angle JGN = 59^\circ$ and $GH = IG$. Find the measure of x .



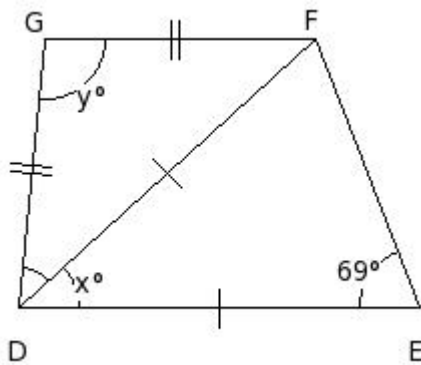
- (i) $x = 64^\circ$ (ii) $x = 63^\circ$ (iii) $x = 60^\circ$
- (iv) $x = 62^\circ$ (v) $x = 61^\circ$

19. In the given figure, $FG \parallel HI$ and $FH = HJ$. Find the values of x, y and z .



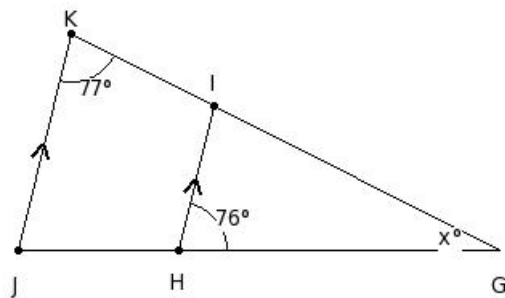
- (i) $x = 39^\circ, y = 76^\circ, z = 26^\circ$
- (ii) $x = 35^\circ, y = 78^\circ, z = 28^\circ$
- (iii) $x = 37^\circ, y = 74^\circ, z = 30^\circ$
- (iv) $x = 35^\circ, y = 76^\circ, z = 30^\circ$
- (v) $x = 37^\circ, y = 76^\circ, z = 28^\circ$

20. In the following figure $DE \parallel GF$, find the values of x and y .



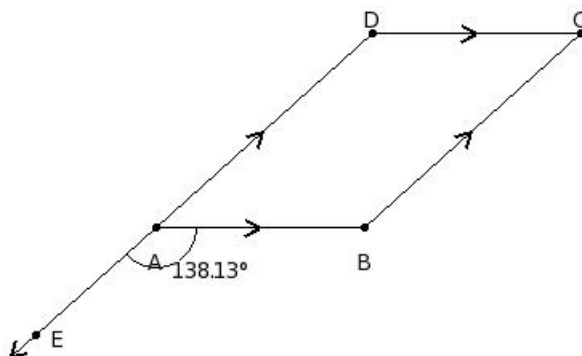
- (i) $x = 41^\circ, y = 95^\circ$
- (ii) $x = 44^\circ, y = 98^\circ$
- (iii) $x = 43^\circ, y = 97^\circ$
- (iv) $x = 40^\circ, y = 94^\circ$
- (v) $x = 42^\circ, y = 96^\circ$

21. In the given figure, it is given that $IH \parallel KJ$, $\angle IKJ = 77^\circ$ and $\angle IHG = 76^\circ$. Find the value of x .



- (i) $x = 27^\circ$ (ii) $x = 26^\circ$ (iii) $x = 25^\circ$
- (iv) $x = 29^\circ$ (v) $x = 28^\circ$

22. In the adjoining figure, side DA of parallelogram ABCD has been produced to E. If $\angle BAE = 138.13^\circ$, find the measure of each angle of the parallelogram.



- (i) $A = 43.87^\circ, B = 137.13^\circ, C = 39.87^\circ, D = 139.13^\circ$
- (ii) $A = 42.87^\circ, B = 137.13^\circ, C = 43.87^\circ, D = 136.13^\circ$

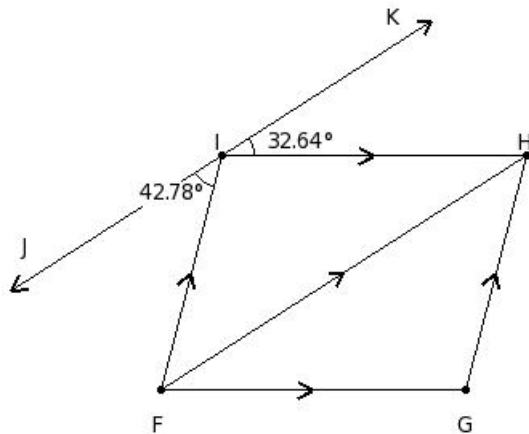
(iii) $A = 39.87^\circ$, $B = 140.13^\circ$, $C = 40.87^\circ$, $D = 139.13^\circ$

(iv) $A = 40.87^\circ$, $B = 136.13^\circ$, $C = 42.87^\circ$, $D = 140.13^\circ$

(v) $A = 41.87^\circ$, $B = 138.13^\circ$, $C = 41.87^\circ$, $D = 138.13^\circ$

23. In the adjoining figure, FGHI is a parallelogram and JK is such that $\overline{JK} \parallel \overline{FH}$

If $\angle FIJ = 42.78^\circ$ and $\angle HIK = 32.64^\circ$, find the measure of $\angle FGH$.



- (i) 104.59° (ii) 105.59° (iii) 103.59° (iv) 106.59° (v) 102.59°

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

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

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

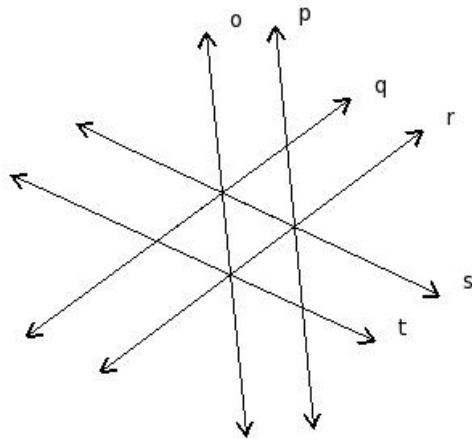
- a) One is interior angle and the other is exterior angle
 - b) They are on the same side of the transversal
 - c) They are adjacent angles
 - d) They are not adjacent angles
 - e) They are on either side of the transversal
 - f) Both are interior angles
- (i) $\{c, a\}$ (ii) $\{a, b, d\}$ (iii) $\{e,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

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

27. In the given figure, o, p, q, r, s, t are lines in a plane. By looking at the figure, which of the following are true?

- a) o is the transversal of q & s
- b) $o \parallel p$
- c) $o \parallel r$
- d) t is the transversal of q & o
- e) r is the transversal of o & p
- f) s is the transversal of q & r



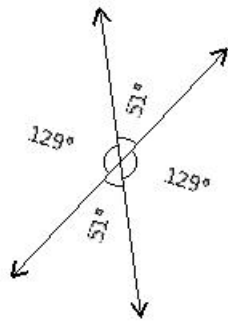
- (i) {b,d,e,f} (ii) {c,d} (iii) {a,c,e} (iv) {a,b} (v) {a,f,b}

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

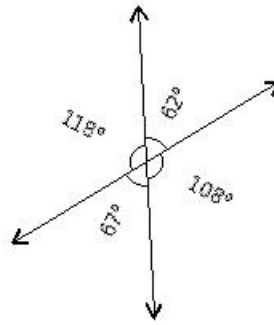
- a) $f \parallel g$
- b) $e \parallel g$
- c) $d \parallel g$
- d) $d \perp g$
- e) $d \parallel f$

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

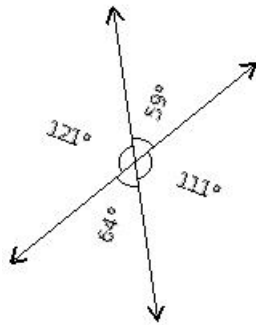
29. Which of the given figures is correct?



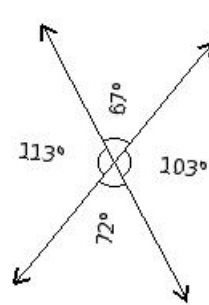
I



II



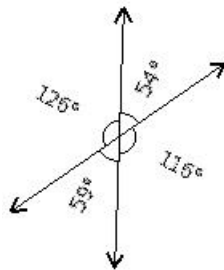
III



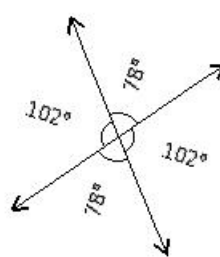
IV

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

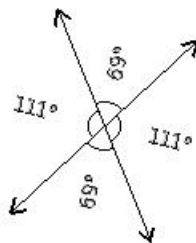
30. Which of the given figures is wrong?



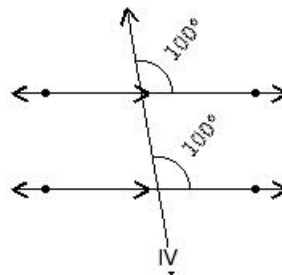
I



II



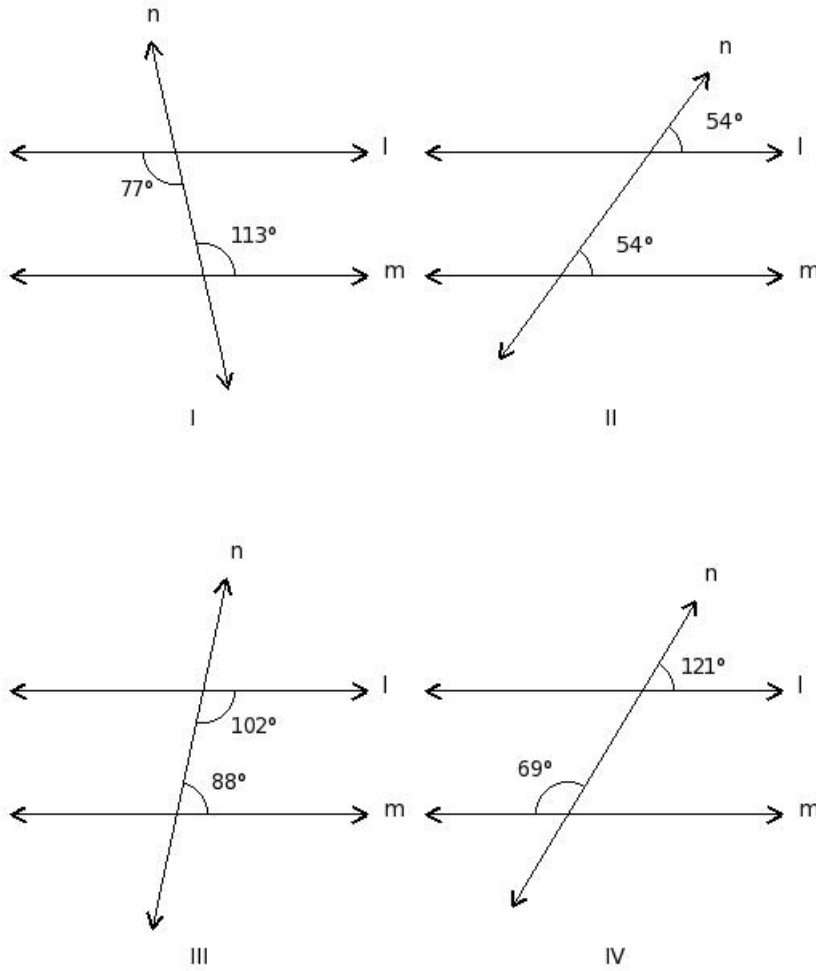
III



IV

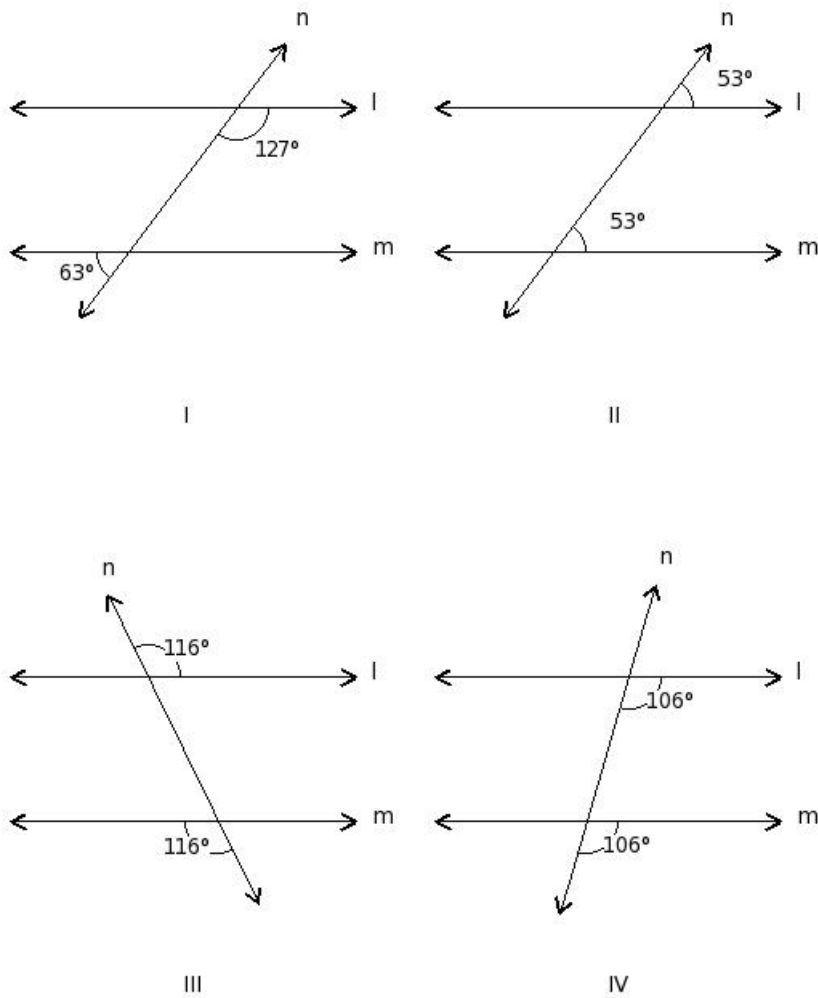
(i) I (ii) III (iii) II (iv) IV

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



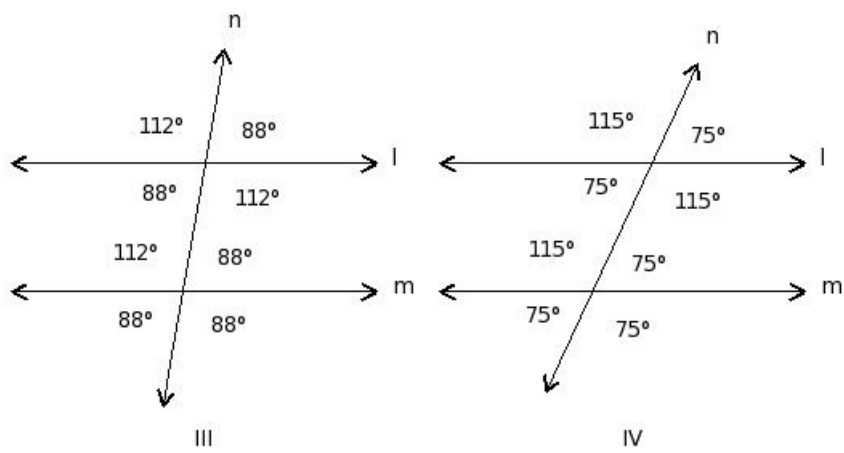
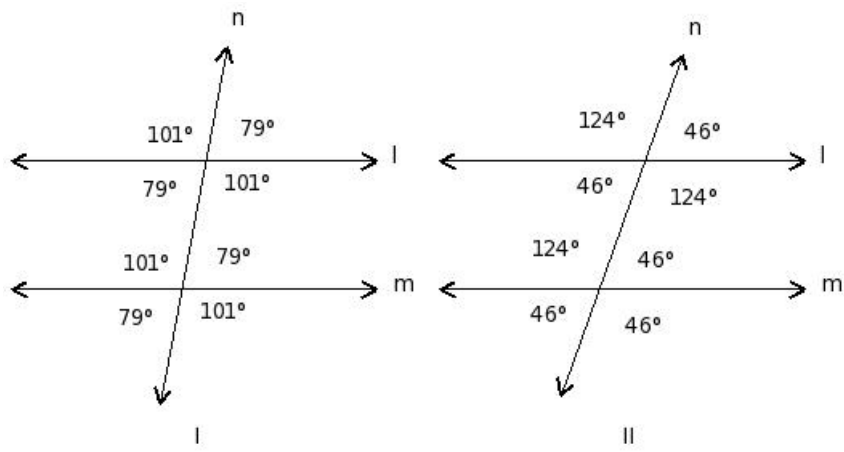
(i) I (ii) II (iii) IV (iv) III

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



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

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



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

Assignment Key

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