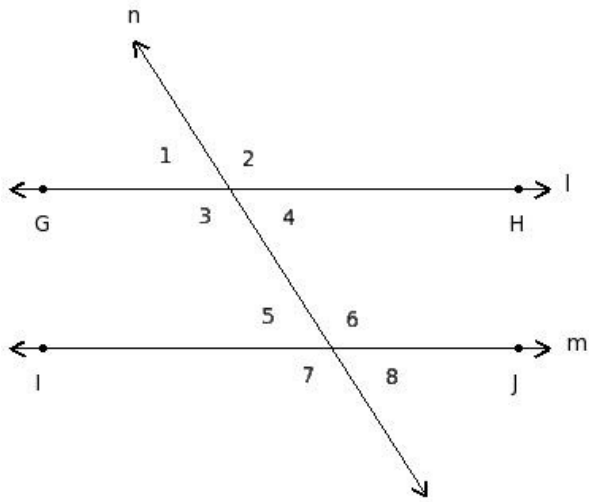


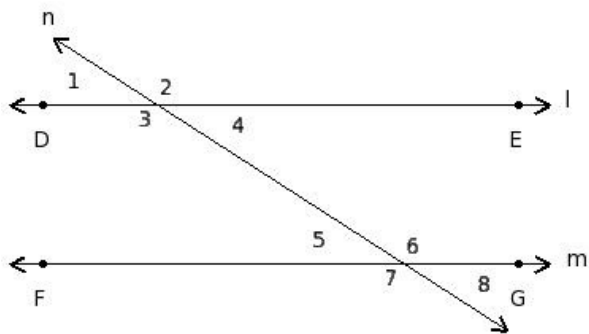


1. Find the interior alternate angles in the given figure



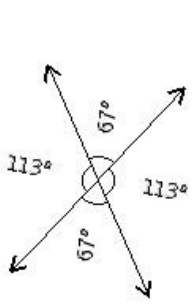
- (i) $\angle 1, \angle 2, \angle 7, \angle 8$ (ii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$ (iii) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
(iv) $\angle 3, \angle 6; \angle 4, \angle 5$ (v) $\angle 1, \angle 2; \angle 2,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

2. Find the exterior angles in the given figure

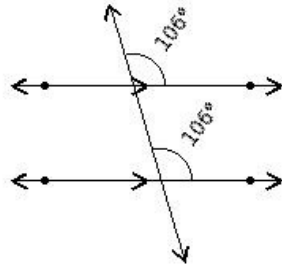


- (i) $\angle 1, \angle 2, \angle 7, \angle 8$ (ii) $\angle 3, \angle 6; \angle 4, \angle 5$ (iii) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
(iv) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$ (v) $\angle 1, \angle 8; \angle 2,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

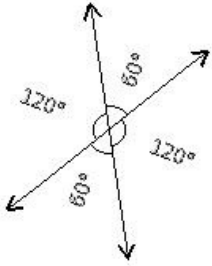
3. Which of the given figures is wrong?



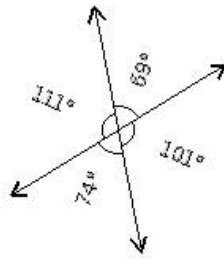
I



II



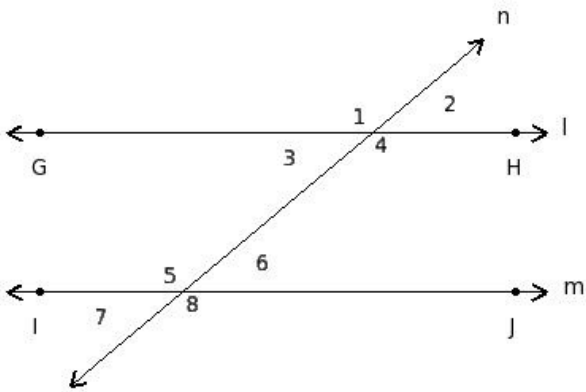
III



IV

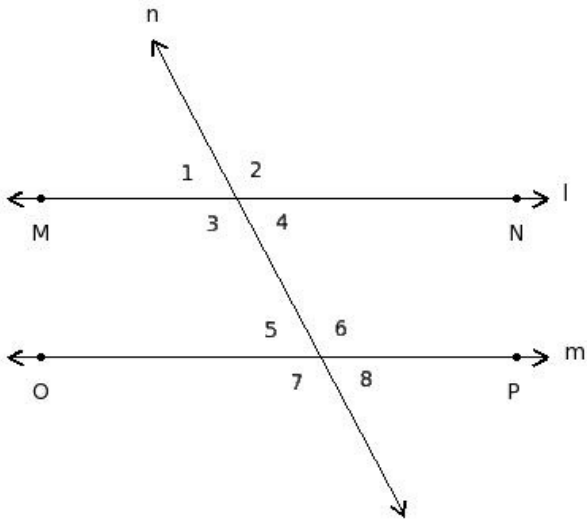
(i) II (ii) IV (iii) III (iv) I

4. Find the adjacent angles in the given figure



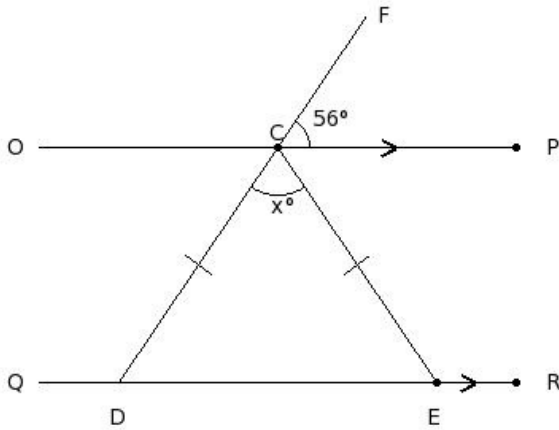
(i) $\angle 1, \angle 4$; $\angle 2, \angle 3$; $\angle 5, \angle 8$; $\angle 6, \angle 7$ (ii) $\angle 1, \angle 5$; $\angle 2, \angle 6$; $\angle 3, \angle 7$; $\angle 4, \angle 8$ (iii) $\angle 3, \angle 4, \angle 5, \angle 6$
 (iv) $\angle 1, \angle 2$; $\angle 2, \angle 4$; $\angle 4, \angle 3$;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

5. Find the vertically opposite angles in the given figure



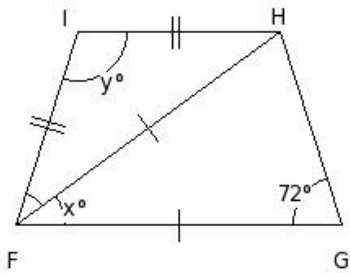
- (i) $\angle 3, \angle 4, \angle 5, \angle 6$ (ii) $\angle 1, \angle 2, \angle 7, \angle 8$ (iii) $\angle 1, \angle 4; \angle 2, \angle 3; \angle 5, \angle 8; \angle 6, \angle 7$
 (iv) $\angle 1, \angle 5; \angle 2, \angle 6; \angle 3, \angle 7; \angle 4, \angle 8$
 (v) $\angle 1, \angle 2; \angle 2,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

6. In the given figure, $OP \parallel QR$, $\angle FCP = 56^\circ$ and $CD = EC$. Find the measure of x .



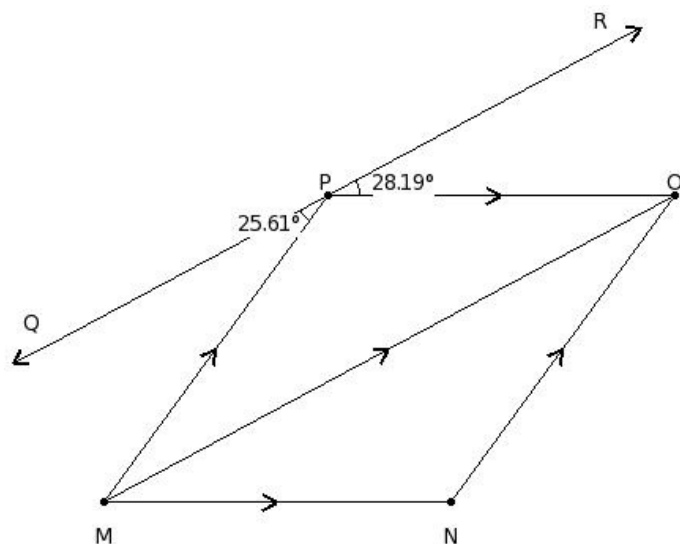
- (i) $x=67^\circ$ (ii) $x=70^\circ$ (iii) $x=66^\circ$ (iv) $x=68^\circ$ (v) $x=69^\circ$

7. In the following figure $FG \parallel IH$, find the values of x and y .



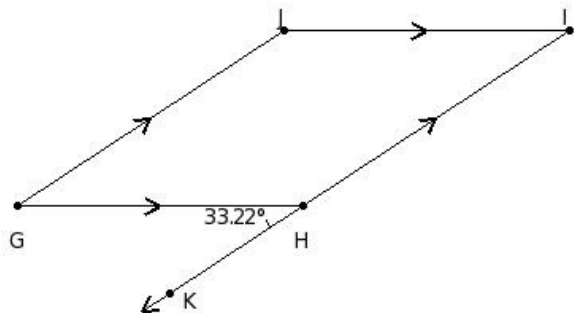
- (i) $x=37^\circ, y=109^\circ$ (ii) $x=34^\circ, y=106^\circ$ (iii) $x=35^\circ, y=107^\circ$ (iv) $x=38^\circ, y=110^\circ$ (v) $x=36^\circ, y=108^\circ$

8. In the adjoining figure, MNOP is a parallelogram and QR is such that $\overline{QR} \parallel \overline{MO}$. If $\angle MPQ = 25.61^\circ$ and $\angle OPR = 28.19^\circ$, find the measure of $\angle OPM$.



- (i) 124.20° (ii) 126.20° (iii) 128.20° (iv) 125.20° (v) 127.20°

9. In the adjoining figure, side HI of parallelogram GHIJ has been produced to K. If $\angle GHK = 33.22^\circ$, find the measure of each angle of the parallelogram.



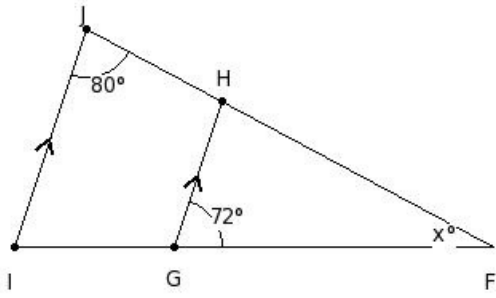
- (i) $G=32.22^\circ, H=144.78^\circ, I=34.22^\circ, J=148.78^\circ$ (ii) $G=35.22^\circ, H=145.78^\circ, I=31.22^\circ, J=147.78^\circ$
 (iii) $G=33.22^\circ, H=146.78^\circ, I=33.22^\circ, J=146.78^\circ$ (iv) $G=31.22^\circ, H=148.78^\circ, I=32.22^\circ, J=147.78^\circ$
 (v) $G=34.22^\circ, H=145.78^\circ, I=35.22^\circ, J=144.78^\circ$

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

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

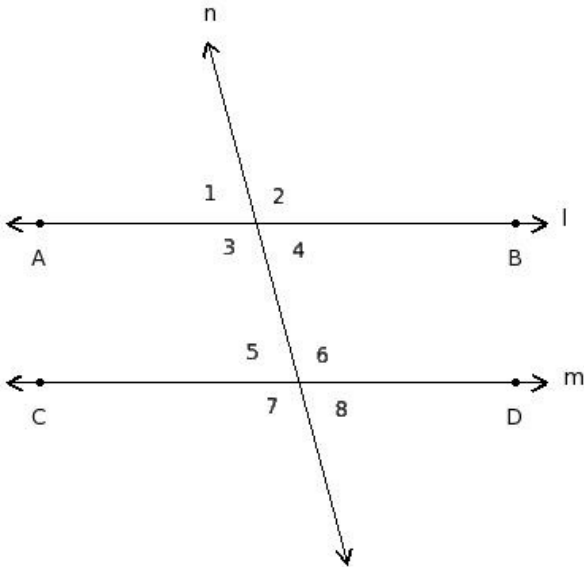
- (i) $\{b,c,f\}$ (ii) $\{d,c\}$ (iii) $\{a,b\}$ (iv) $\{d,b,c\}$ (v) $\{e,a,f\}$

11. In the given figure, it is given that $HG \parallel JI$, $\angle HJI = 80^\circ$ and $\angle HGF = 72^\circ$. Find the value of x .



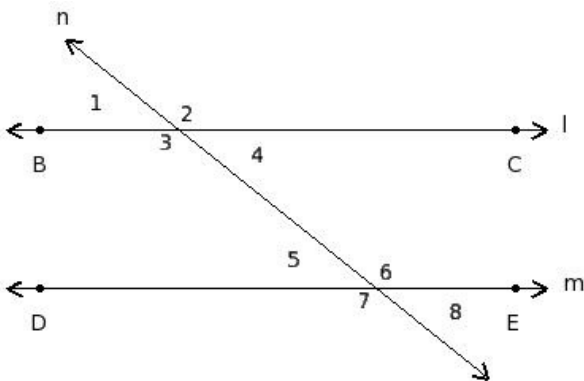
- (i) $x=28^\circ$ (ii) $x=29^\circ$ (iii) $x=30^\circ$ (iv) $x=26^\circ$ (v) $x=27^\circ$

12. Find the exterior alternate angles in the given figure



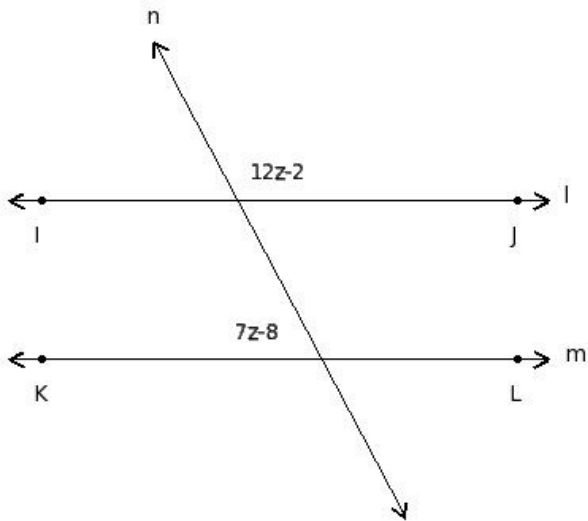
- (i) $\angle 1, \angle 4$; $\angle 2, \angle 3$; $\angle 5, \angle 8$; $\angle 6, \angle 7$ (ii) $\angle 1, \angle 2, \angle 7, \angle 8$ (iii) $\angle 3, \angle 5$; $\angle 4, \angle 6$
 (iv) $\angle 3, \angle 6$; $\angle 4, \angle 5$ (v) $\angle 1, \angle 8$; $\angle 2, \angle 7$

13. Find the interior angles in the given figure



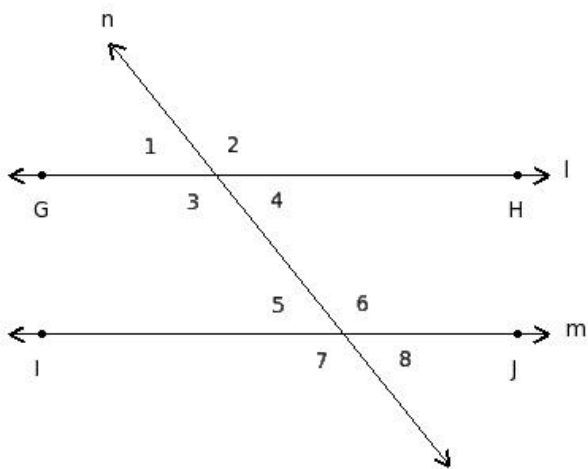
- (i) $\angle 1, \angle 4$; $\angle 2, \angle 3$; $\angle 5, \angle 8$; $\angle 6, \angle 7$ (ii) $\angle 3, \angle 4, \angle 5, \angle 6$ (iii) $\angle 1, \angle 2, \angle 7, \angle 8$
 (iv) $\angle 1, \angle 2$; $\angle 2, \angle 4$; $\angle 4, \angle 3$; $\angle 3, \angle 1$; $\angle 5, \angle 6$;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

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



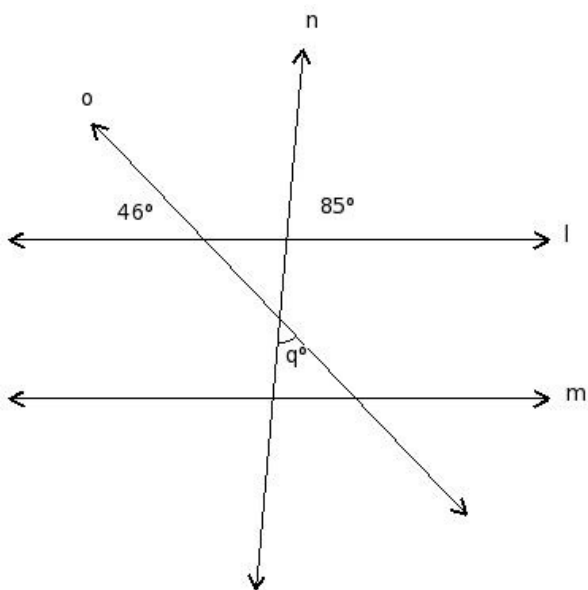
- (i) 13 (ii) 10 (iii) 9 (iv) 11 (v) 8

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



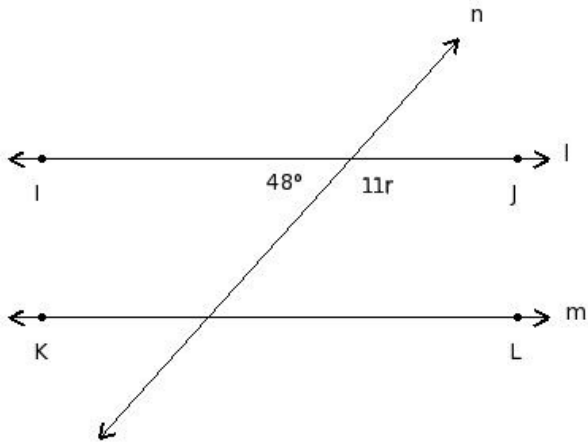
- (i) $\angle 3, \angle 6$; $\angle 4, \angle 5$ (ii) $\angle 1, \angle 2$; $\angle 2, \angle 4$; $\angle 4, \angle 3$; $\angle 3, \angle 1$; $\angle 5, \angle 6$; $\angle 6, \angle 8$; $\angle 8, \angle 7$; $\angle 7, \angle 5$
 (iii) $\angle 1, \angle 5$; $\angle 2, \angle 6$; $\angle 3, \angle 7$;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

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



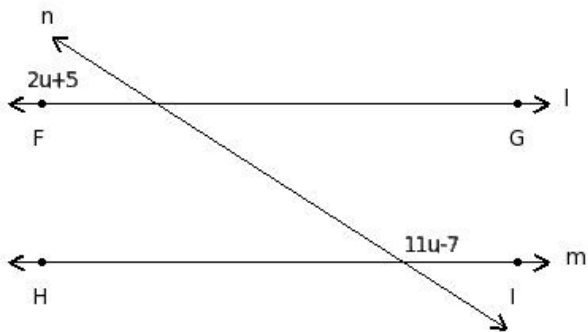
- (i) 59° (ii) 64° (iii) 79° (iv) 54° (v) 49°

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



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

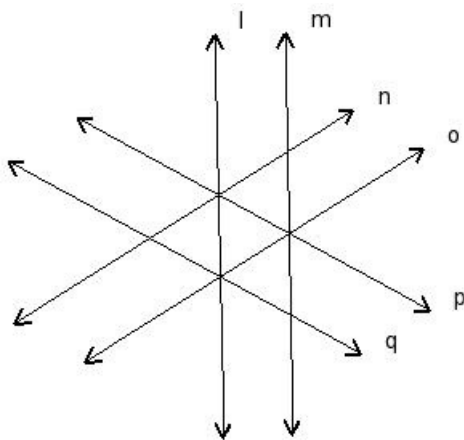
18. In the given figure $l \parallel m$. Find the value of 'u'



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

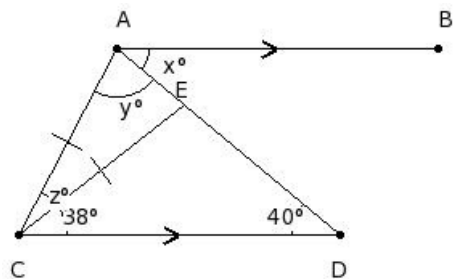
19. In the given figure, l, m, n, o, p, q are lines in a plane. By looking at the figure, which of the following are true?

- a) $l \parallel o$
- b) $l \parallel m$
- c) p is the transversal of n & o
- d) o is the transversal of l & m
- e) q is the transversal of n & l
- f) l is the transversal of n & p



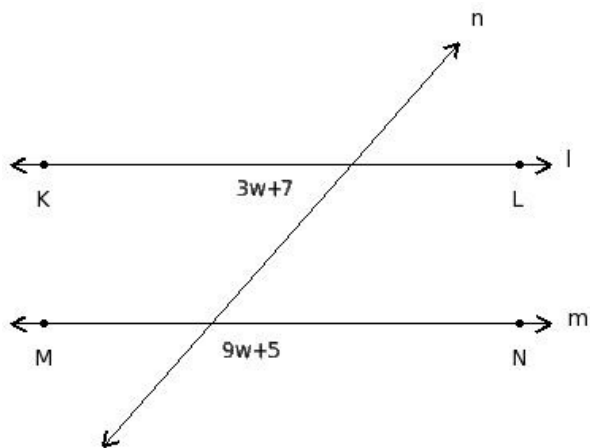
- (i) $\{a,b\}$ (ii) $\{a,e,b\}$ (iii) $\{b,c,d,e\}$ (iv) $\{f,c\}$ (v) $\{a,f,d\}$

20. In the given figure, $AB \parallel CD$ and $AC = CE$. Find the values of x, y and z .



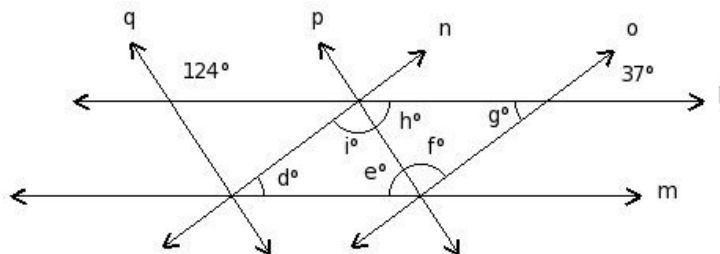
- (i) $x=38^\circ, y=78^\circ, z=26^\circ$ (ii) $x=38^\circ, y=80^\circ, z=24^\circ$ (iii) $x=42^\circ, y=78^\circ, z=22^\circ$ (iv) $x=40^\circ, y=78^\circ, z=24^\circ$
 (v) $x=40^\circ, y=76^\circ, z=26^\circ$

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



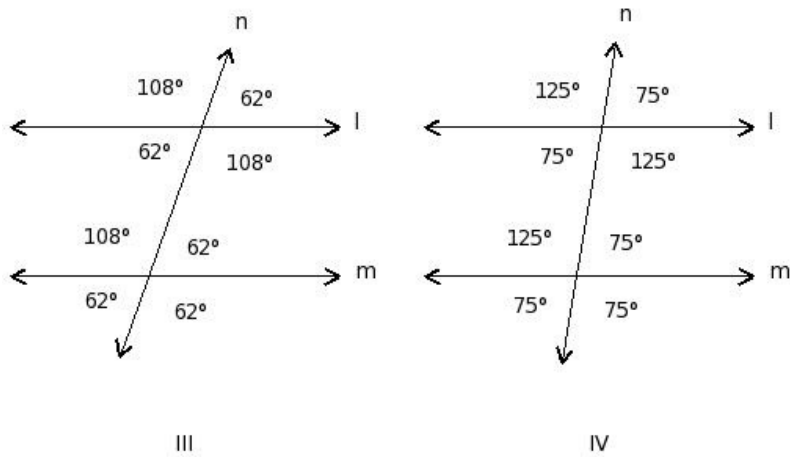
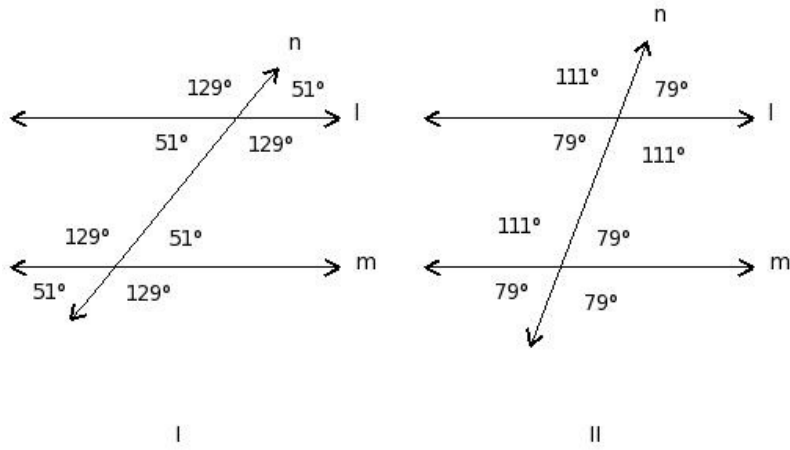
- (i) 16 (ii) 15 (iii) 14 (iv) 11 (v) 13

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



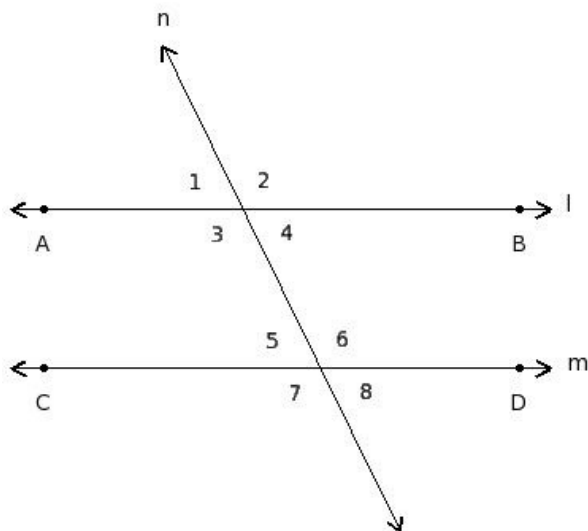
- (i) $56^\circ, 87^\circ, 37^\circ, 56^\circ, 37^\circ, 87^\circ$ (ii) $87^\circ, 56^\circ, 56^\circ, 37^\circ, 37^\circ, 87^\circ$ (iii) $37^\circ, 56^\circ, 87^\circ, 37^\circ, 56^\circ, 87^\circ$
 (iv) $87^\circ, 37^\circ, 56^\circ, 87^\circ, 37^\circ, 56^\circ$ (v) $87^\circ, 87^\circ, 56^\circ, 37^\circ, 37^\circ, 56^\circ$

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



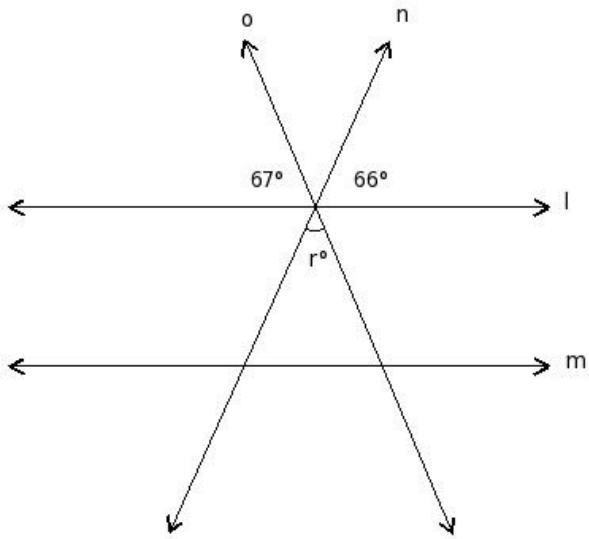
- (i) III (ii) II (iii) IV (iv) I

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

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



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

Assignment Key

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