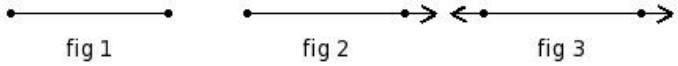
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Lines and Angles

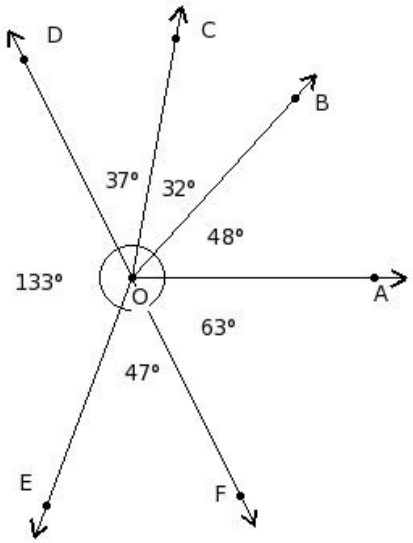
Grade : CBSE Grade IX

1. Which of the following figures represent a line?



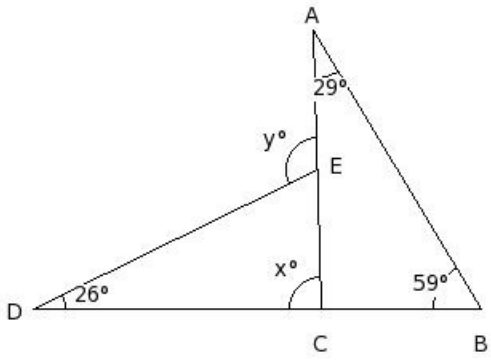
(i) fig 2 (ii) fig 3 (iii) fig 1

2. Which of the following angles form a linear pair?



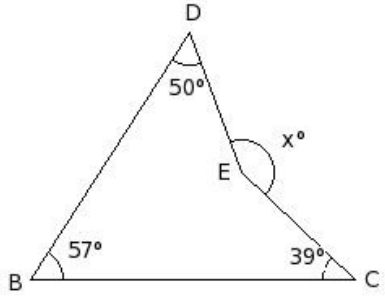
(i) (∠AOB,∠BOC) (ii) (∠EOF,∠FOA) (iii) (∠BOC,∠COD) (iv) (∠DOE,∠EOF) (v) (∠COD,∠DOE)

3. Find the unknown marked angles in the following figure



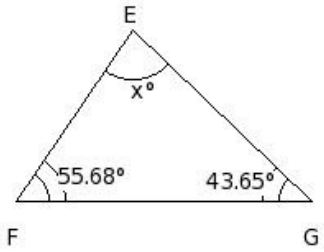
(i) x=88°,y=114° (ii) x=90°,y=116° (iii) x=87°,y=113° (iv) x=86°,y=112° (v) x=89°,y=115°

4. In the given figure, calculate the value of x.



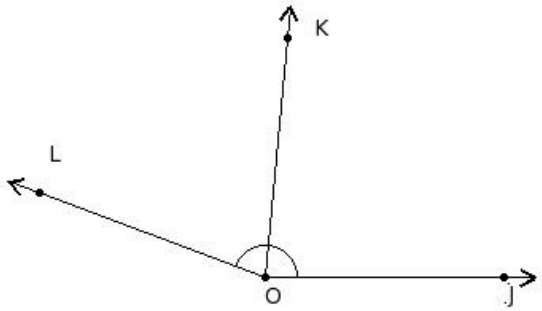
(i) x=147° (ii) x=145° (iii) x=146° (iv) x=144° (v) x=148°

5. Find the unknown angle from the following figure



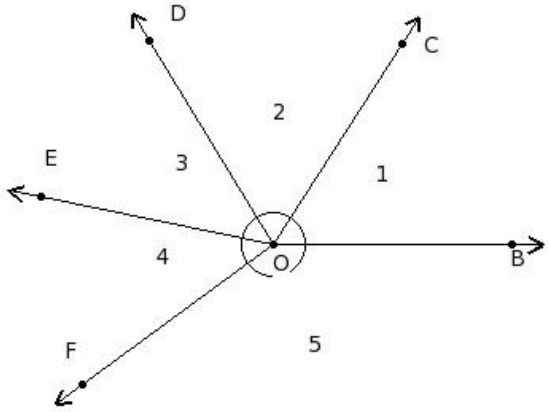
(i) x=79.67° (ii) x=82.67° (iii) x=78.67° (iv) x=81.67° (v) x=80.67°

6. Which of the following are adjacent angles in the below figure?



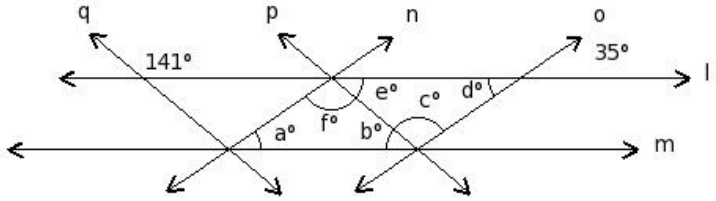
(i) ∠NOO , ∠KOL (ii) ∠MON , ∠KOL (iii) ∠JOK , ∠KOL (iv) ∠KOL , ∠MON (v) ∠LOJ , ∠NOO

7. Which of the following are adjacent angles in the below figure?



(i) ∠COD , ∠EOF (ii) ∠FOB , ∠COD (iii) ∠BOC , ∠COD (iv) ∠EOF , ∠COD (v) ∠DOE , ∠FOB

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



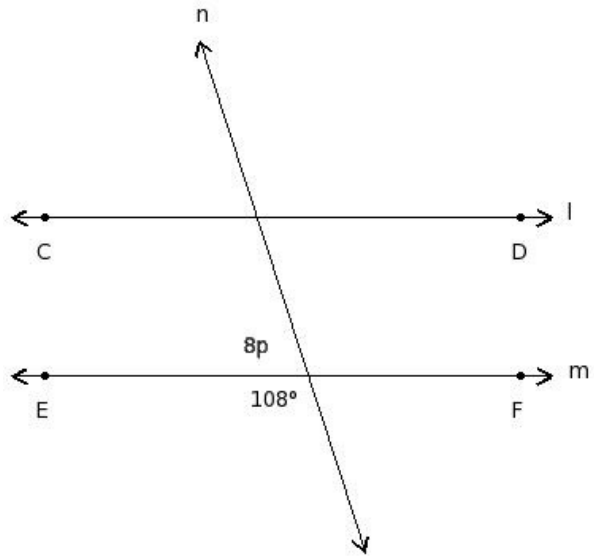
(i) 35°,39°,106°,106°,39°,35° (ii) 35°,39°,106°,35°,39°,106° (iii) 39°,35°,106°,35°,39°,106°

(iv) 39°,39°,35°,106°,35°,106° (v) 39°,39°,35°,106°,106°,35°

9. Which of the following is an obtuse angle?

(i) 126° (ii) 90° (iii) 360° (iv) 87° (v) 342°

10. In the given figure l ∥ m. Find the value of 'p'



(i) 8 (ii) 6 (iii) 10 (iv) 11 (v) 9

11. Multiple lines which pass through the same point are called

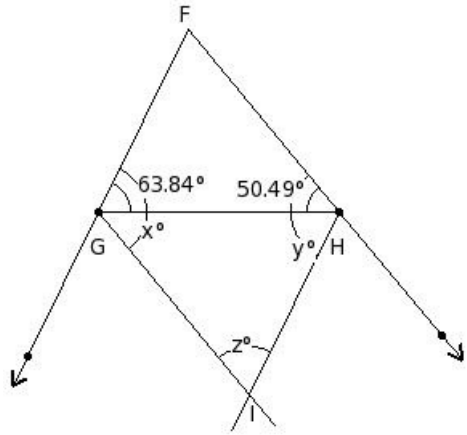
(i) perpendicular lines (ii) intersecting lines (iii) concurrent lines (iv) coplanar lines (v) parallel lines

12. Which of the following are true?

a) If two lines are parallel to the same line, then they are perpendicular to each other
b) If $q \perp r$ and $r \perp s$, then $q \perp s$
c) If $q \perp r$ and $q \perp s$, then $r \perp s$
d) If two lines are parallel to the same line, then they are parallel to each other
e) If $q \parallel r$ and $r \parallel s$, then $q \parallel s$

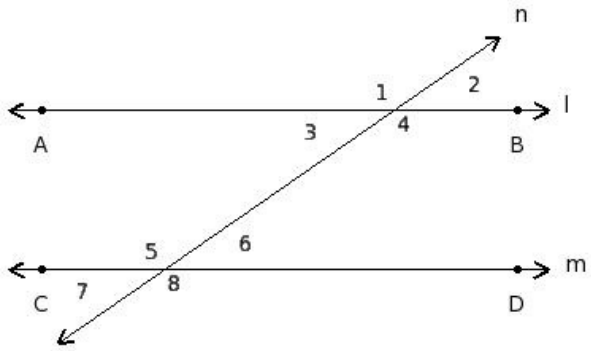
(i) {d,e} (ii) {c,a,d} (iii) {a,d} (iv) {b,e} (v) {b,e,d}

13. In the given figure, △FGH in which ∠G = 63.84° and ∠H = 50.49°. FI and GH bisects each other. Find the value of z



(i) z=66.67° (ii) z=65.67° (iii) z=64.67° (iv) z=67.67° (v) z=63.67°

14. Find the adjacent angles in the given figure

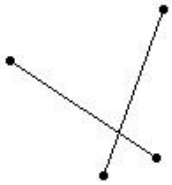


(i) ∠1 , ∠5 ; ∠2 , ∠6 ; ∠3 , ∠7 ; ∠4 , ∠8

(ii) ∠1 , ∠2 ; ∠2 , ∠4 ; ∠4 , ∠3 ; ∠3 , ∠1 ; ∠5 , ∠6 ; ∠6 , ∠8 ; ∠8 , ∠7 ; ∠7 , ∠5 (iii) ∠3 , ∠4 , ∠5 , ∠6

(iv) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7 (v) ∠1 , ∠2 , ∠7 , ∠8

15. The following lines represent

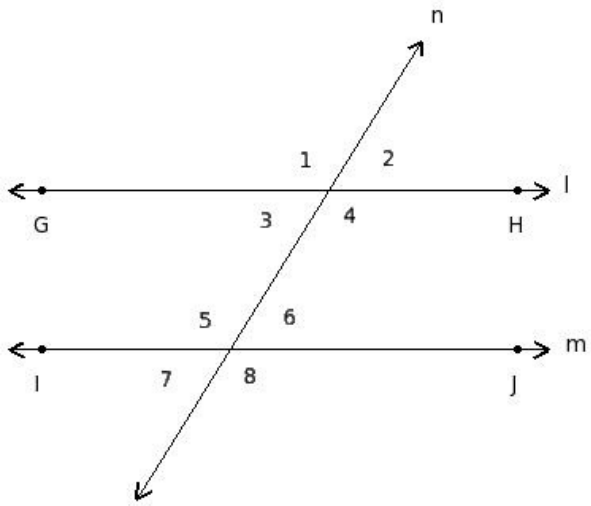


(i) concurrent lines (ii) perpendicular lines (iii) intersecting lines (iv) parallel lines (v) coplanar lines

16. Points lying on the same line are called

(i) collinear points (ii) linear points (iii) non-linear points (iv) semi-linear points (v) concurrent points

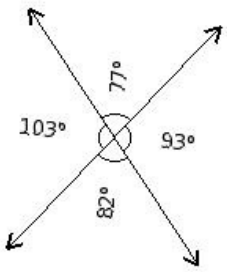
17. Find the exterior alternate angles in the given figure



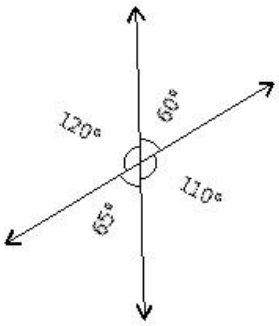
(i) ∠1 , ∠4 ; ∠2 , ∠3 ; ∠5 , ∠8 ; ∠6 , ∠7 (ii) ∠3 , ∠6 ; ∠4 , ∠5 (iii) ∠3 , ∠4 , ∠5 , ∠6

(iv) ∠3 , ∠5 ; ∠4 , ∠6 (v) ∠1 , ∠8 ; ∠2 , ∠7

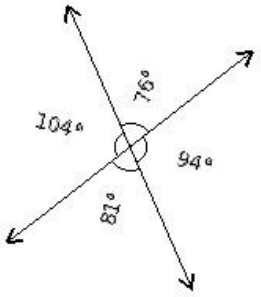
18. Which of the given figures is correct?



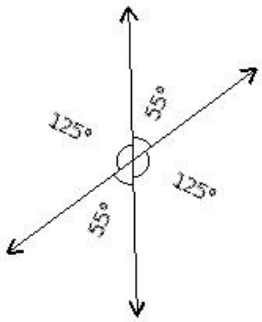
I



II



III



IV

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

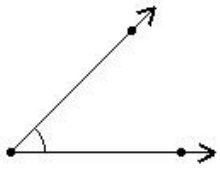
19. Two lines meeting at a point and making an angle of 90° at the meeting point are called

(i) concurrent lines (ii) parallel lines (iii) perpendicular lines (iv) coplanar lines (v) intersecting lines

20. A line that intersects two lines at two different points is called

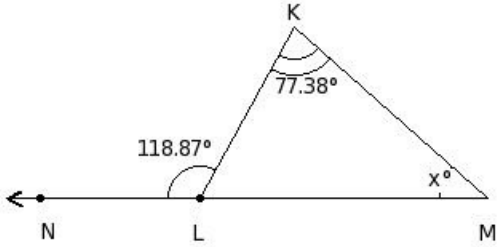
(i) coplanar lines (ii) perpendicular lines (iii) parallel lines (iv) concurrent lines (v) transversal

21. Identify the figure below



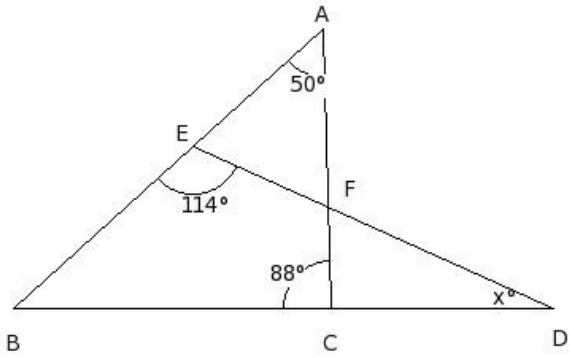
(i) quadrilateral (ii) nonagon (iii) angle (iv) circle (v) octagon

22. Calculate the value of x in the following figure



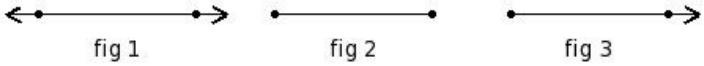
(i) x=39.49° (ii) x=40.49° (iii) x=42.49° (iv) x=43.49° (v) x=41.49°

23. In the given figure, calculate the value of x.



(i) x=24° (ii) x=22° (iii) x=23° (iv) x=25° (v) x=26°

24. Which of the following figures represent a line segment?



(i) fig 1 (ii) fig 3 (iii) fig 2

25. Which of the following is a zero angle?

(i) 153° (ii) 79° (iii) 0° (iv) 360° (v) 180°

Assignment Key

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