INDIAN SCHOOL AL WADI AL KABIR

Class VII, Mathematics ***Worksheet- LINES AND ANGLES***

18-10-20

OBJECTIVE TYPE (1 Mark)

Q.1. Angles which are both supplementary and vertically opposite are

	A	95°,85°	**B**	100°,60°	**C**	90°,90°	**D**	45°,45°

Q.2. The angles x and (90° – x) are

	A	supplementary	**B**	complementary	**C**	vertically opposite	**D**	making a linear pair

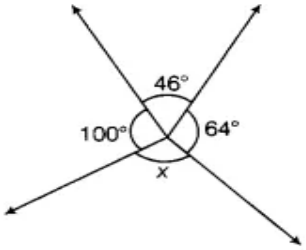
Q.3. The difference of two complementary angles is 30°. Then, the angles are

	A	60°, 30°	**B**	70°, 40°	**C**	20°,50°	**D**	105°,75°

Q.4. The sum of two vertically opposite angles is 166°. Find each of the angles.

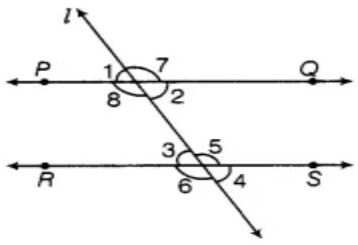
	A	14°	**B**	7°	**C**	30°	**D**	83°

Q.5. In the given figure, the value of x is



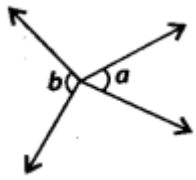
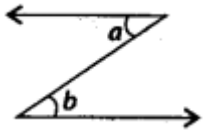
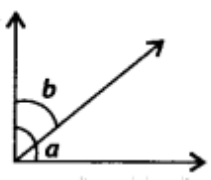
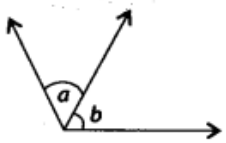
	A	210°	**B**	150°	**C**	46°	**D**	80°

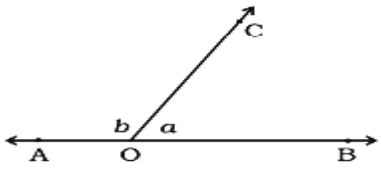
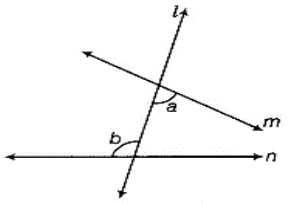
Q.6. In the given figure, which one of the following is not true?



	A	∠1+∠5=180°	**B**	∠2 + ∠5=180°	**C**	∠3 + ∠8=180°	**D**	∠2 + ∠3=180°

Q.7. In which of the following figures, a and b are forming a pair of adjacent angles?

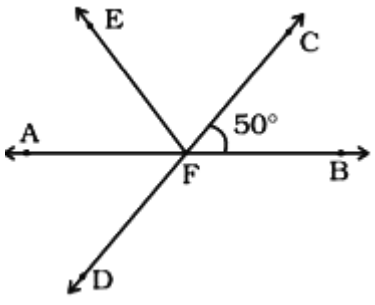
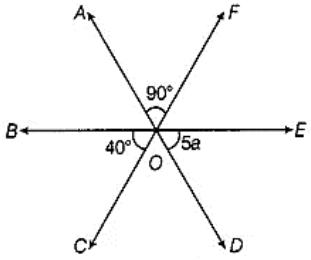
	A		**B**		**C**		**D**	

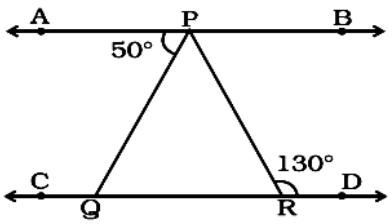
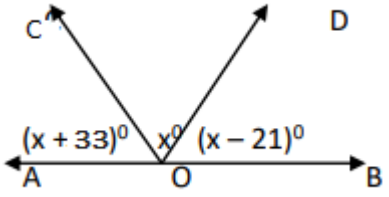
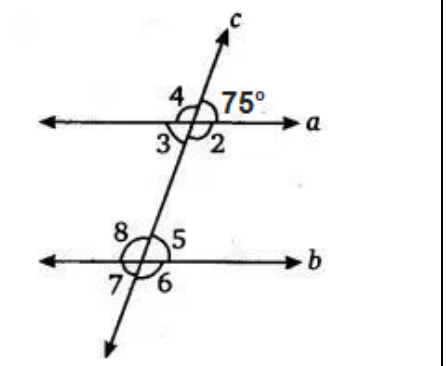
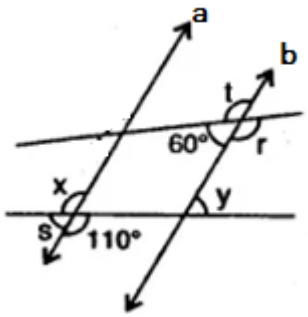
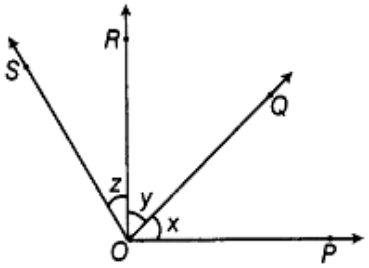
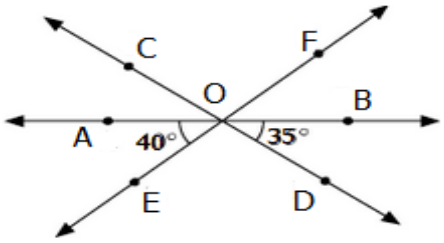
Q.8.	The angle which makes a linear pair with an angle of 61° is of							
	A	61°	**B**	119°	**C**	122°	**D**	29°
Q.9.	For the figure, statements p and q are given below: p: a and b are forming a linear pair. q: a and b are forming a pair of adjacent angles. Then,							
	A	both p and q are true	**B**	p is true and q is false	**C**	p is false and q is true	**D**	both p and q are false
Q.10.	In the given figure, a and b are							
	A	alternate exterior angles	**B**	corresponding angles	**C**	alternate interior angles	**D**	vertically opposite angles

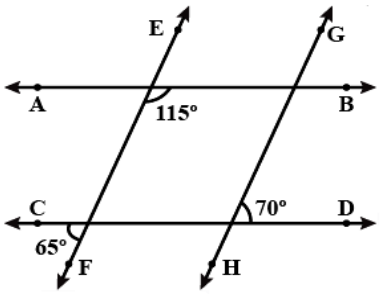
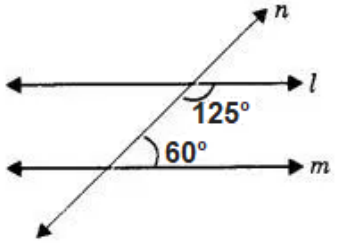
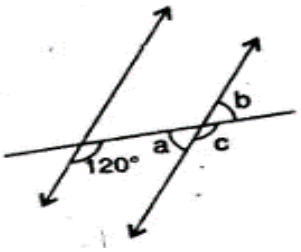
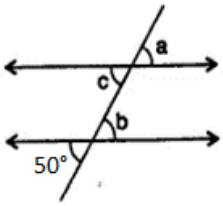
Fill in the blanks(1mark)

Q.11.	A line which intersects two or more given lines at different points is called_____.
Q.12.	If one angle of a linear pair is an acute angle, then the other angle is of kind_____.
Q.13.	The supplement of 139° is_____.
Q.14.	The angle equal to its complement is _____.
Q.15.	The number of angles that two line segment when meet at a point can make is _____

SECTION B (2 marks)

Q.16.	In the given figure, CD intersects the line AB at F, ∠CFB = 50° and ∠EFA = ∠AFD. Find the measure of ∠EFC.	
Q.17.	In the given figure, find ∠EOF and ∠COD.	

Q.18.	Find the two angles if the given two supplementary angles are in the ratio 2:3.	
Q.19.	In the given figure, if AB||CD, ∠APQ = 50° and ∠PRD = 130°, then find (i)∠PQR (ii) ∠PRQ	
Q.20.	In the given figure, find ∠AOC, ∠COD and ∠BOD.	
	SECTION C (4 marks)	
Q.21.	In the adjoining figure, find the unknown angles if a is parallel to b.	 
Q.22.	In the given figure, OR ⊥ OP. (i)Name all the pairs of adjacent angles. (ii) Name all the pairs of complementary angles	
Q.23.	In the given adjoining figure, three lines AB, CD and EF intersect each other at O. If ∠AOE = 40° and ∠DOB = 35°, find (i)∠COF (ii) ∠COA (iii) ∠BOF and (iv) ∠EOD	

Q.24.	In the given adjoining figures, examine whether the following pairs of lines are parallel or not: (i)EF and GH (ii) AB and CD (iii)line ℓ and line m		
Q.25.	In the adjoining figures, if the given two lines are parallel then find the unknown angles a, b and c.		

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Answers

Answers	**1**	C	**2**	B	**3**	A	**4**	D
	5	B	**6**	A and D	**7**	D	**8**	B
	9	A	**10**	C	**11**	Transversal	**12**	Obtuse
	13	41	**14**	45°,45°	**15**	4	**16**	80°
	17	∠EOF=40° ∠COD=90°	**18**	72°, 108°	**19**	∠PQR = 50° ∠PRQ = 50°	**20**	89°,56°, 35°
	21	1) ∠3=∠5=∠7=75° ∠2=∠4=∠6=∠8= 105° 2) x =110° =y s = 70° t =120° = r	**22**	Adjacent angles (i)∠SOR and ∠ROQ (ii)∠SOQ and ∠QOP (iii)∠SOR and ∠ROP (iv)∠QOP and ∠ROQ Complementary angles (i)∠QOP and ∠ROQ	**23**	(i)∠COF=105° (ii)∠COA=35 ° (iii)∠BOF=40 ° (iv)∠EOD =105°	**24**	AB∥CD EF∦GH m ∦ℓ
	25	(i)60°,60°,120°	**25**	(ii)50°, 50° ,50°				