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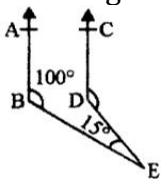
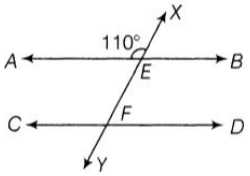
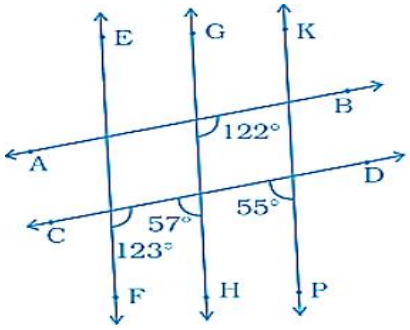
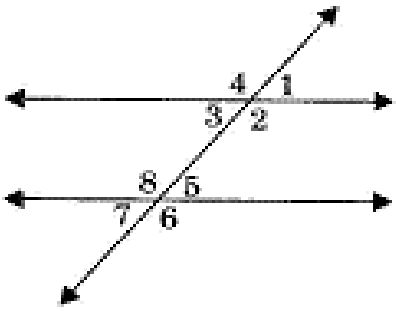
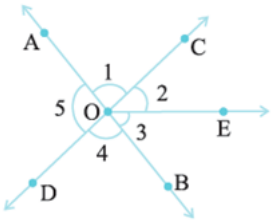
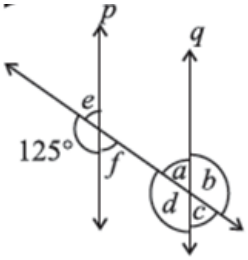
Class :VII
Worksheet No.-1
Subject:- Mathematics
Name of the chapter :-Lines and Angles.

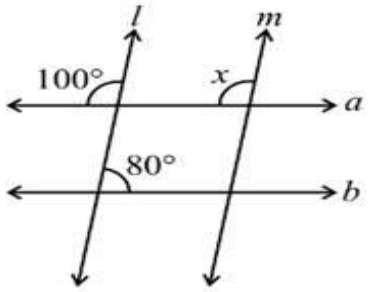
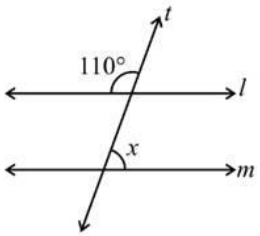
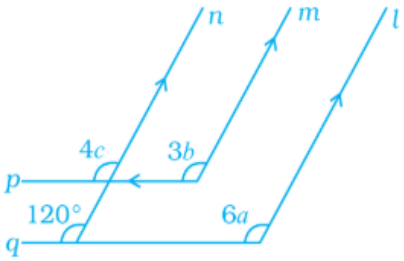
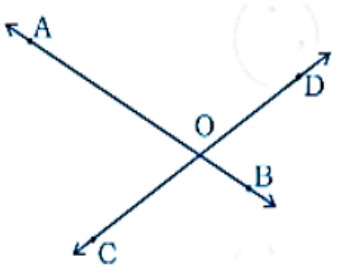
	Section A	
1	Find the angle which is five times its supplement. a) 120^o b) 160^o c) 150^o d) 100^o	**[1]**
2	The angles x - 10^o and 190^o - x are a) supplementary b) complementary c) interior angles on the same side of the transversal d) making a linear pair	**[1]**
3	Which pair of the following angles are supplementary? a) 50^o , 110^o b) 65^o , 105^o c) 45^o , 45^o d) 110^o , 70^o	**[1]**
4	In the figure, AB || CD,∠ ABE = 100^o and ∠ BED = 15^o . The measurement of ∠ CDE is:  a) 115^o b) 110^o	**[1]**

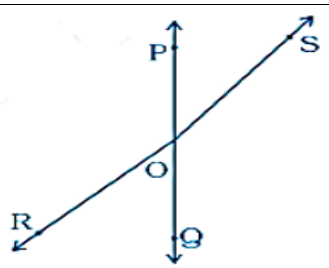
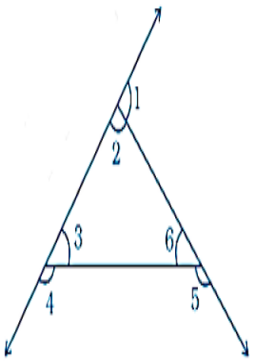
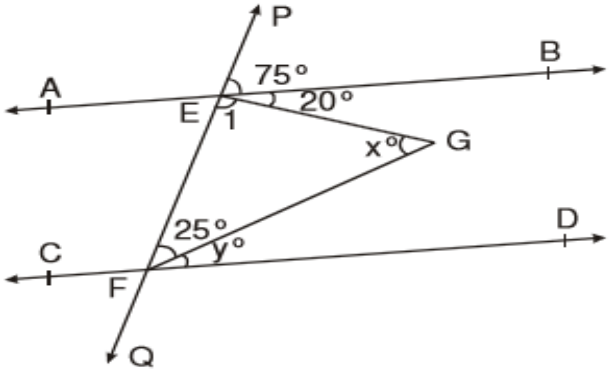
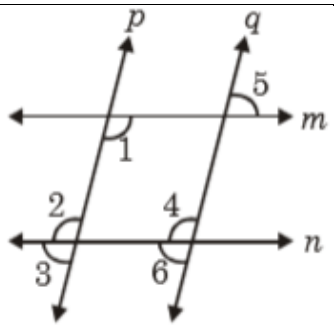
	c) 100^o d) 108^o	
5	In the given figure, AB and CD are two parallel lines. A line XY meets the lines AB and CD at E and F respectively. If∠ XEA = 110^o , then ∠ EFD is  a) 80^o b) 45^o c) 70^o d) 110^o	**[1]**
6	If angle P and angle Q are supplementary and the measure of angle P is 60^o , then the measure of angle Q is a) 120^o b) 60^o c) 20^o d) 30^o	**[1]**
7	Which pair of the following angles are complementary? a) 48^o , 52^o b) 50^o , 40^o c) 45^o , 55^o d) 40^o , 40^o	**[1]**
8	An angle is$\frac{1}{5}$ of its supplementry angle. What is the measurement of this angle? a) 50^o b) 30^o c) 25^o d) 40^o	**[1]**
9	Angles which are both supplementary and vertically opposite are	**[1]**

	a) $100°, 80°$ b) $95°, 85°$ c) $90°, 90°$ d) $45°, 45°$	
10	If two supplementary angles are in the ratio 3 : 7, then find the difference between them. a) $54°$ b) $126°$ c) $72°$ d) $78°$	**[1]**
	Section B	
11	State true or false: One obtuse angle and one acute angle can make a pair of supplementary angles.	**[1]**
12	State true or false: The point from which the rays are drawn is called the vertex.	**[1]**
13	State true or false: Two obtuse angles cannot be supplement of each other.	**[1]**
14	Fill in the blanks: If a transversal intersects two lines in such a way that a pair of alternate interior angles are equal, then the two lines are _____.	**[1]**
15	Fill in the blanks: The angles that lie between the lines are called _____.	**[1]**
16	Fill in the blanks: If two angles are supplementary then the sum of their measures is _____ degree.	**[1]**
17	**Assertion (A):** Parallel lines are always equidistant. **Reason (R):** If two parallel lines are intersected by a transversal, then a pair of alternate angles are equal.	**[1]**

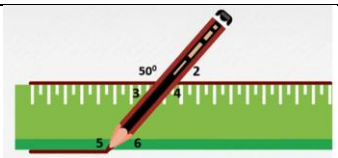
	a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	
18	**Assertion (A):** The measure of alternate angle of 65° is 65° . **Reason (R):** Alternate angle always are equal. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	**[1]**
19	**Assertion (A):** When the sum of the measures of two angles is 90°, the angles are called complementary angles. **Reason (R):** Two acute angles can be complementary to each other. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	**[1]**
20	**Assertion (A):** The name Straight - angle comes from straight - line. **Reason (R):** The sum of angles that are formed on a straight line is equal to 180°. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	**[1]**
	Section C	

21	In the fig., find out which pair of lines are parallel: 	**[2]**
22	In the adjoining figure, identify  1. the pairs of corresponding angles. 2. the pairs of alternate interior angles. 3. the pairs of interior angles on the same side of the transversal. 4. the vertically opposite angles.	**[2]**
23	In the question number 22 if the measure of∠ 4 is 5x and the measure of ∠ 2 is 91 - 2x. What is x?	**[2]**
24	In the adjoining figure, are∠ BOD and ∠ DOA supplementary? 	**[2]**
25	Identify whether the pair of angles are complementary or supplementary: 65º, 115º	**[2]**
26	In the adjoining figure, p || q. Find the unknown angles. 	**[2]**

27	An angle is equal to 5 times its complement. Determine its measure.	**[2]**
28	 Find the value of x in the figures if l || m	**[2]**
29	Identify the pair of angles are complementary or supplementary: 63º, 27º.	**[2]**
30	If a transversal intersects two parallel lines, and the difference of two interior angles on the same side of a transversal is 20^o , find the angles.	**[2]**
	Section D	
31	Two complementary angles are in the ratio 7 : 11. Find the angles.	**[3]**
32	Find the angle which is 32° less than its supplement.	**[3]**
33	 Find the value of x in the figure given if l || m	**[3]**
34	In the figure, l, m, and n are parallel lines, and the lines p and q are also parallel. Find  the values of a, b and c.	**[3]**
35	Name the pairs of supplementary angles in the following figures:  1.	**[3]**

	2.  3. 	
	Section E	
36	In the adjoining figure, AB || CD. Find the values of x and y. 	**[5]**
37	Find the angle which is 1/9th of its supplementary angle.	**[5]**
38	 If m ∥ n and p and q are transversals. ∠ 1 = 123°, find ∠ 2, ∠ 3. Also if ∠ 4 = 85° and ∠ 5 and ∠ 6.	**[5]**
	Section F	

39	**Read the text carefully and answer the questions:** The ratio of angles made by hour hand and second hand to minute hand and second hand is 3:2. Answer the following questions.  1. If the sum of the measures of two angles is 90^o , the angles are called _____. 2. What is angle made by hour hand to second hand? a) 45^o b) 55^o c) 50^o d) 54^o 3. What is angle made by minute hand to second hand? a) 45^o b) 90^o c) 36^o d) 50^o 4. What type of angles they are? a) Supplementary b) Obtuse angles c) Complementary angles d) Adjacent angles 5. Two obtuse angles be complement to each other. (a) True (b) False.	**[5]**
40	**Read the text carefully and answer the questions:** Geeta is drawing line with ruler and pencil. The angle made by pencil with a ruler edge is 50^o as shown below. Find the remaining angles using the concept of parallel lines and transversal.	**[5]**



1. Measure of∠ 2 is _____ degree.
2. Find the measure of∠ 3

   a) 100^o

   b) 40^o

   c) 50^o

   d) 130^o
3. Find the measure of∠ 6

   a) 130^o

   b) 40^o

   c) 30^o

   d) 50^o
4. Find the measure of∠ 4

   a) 40^o

   b) 90^o

   c) 100^o

   d) 50^o
5. Sum of∠ 4 and ∠ 6 is 180^o .

   (a) True (b) False.