

LINES AND ANGLES

Subtopic: Related Angles

Section 1

1. Mark T for True and F for False

1a. The angles in a linear pair are complementary.

1b. When two lines intersect, the vertically opposite angles formed are not equal.

2. Choose the correct answer.

2a. What is formed when lines or line segments meet?

- a) Angle
- b) Line
- c) Curve
- d) Arc

2b. When the sum of the measures of two angles is 90° , the angles are called,

- a) Supplementary
- b) Complementary
- c) Adjacent
- d) Opposite

3. Fill in the blanks

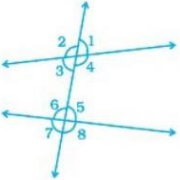
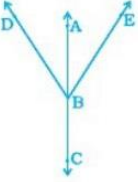
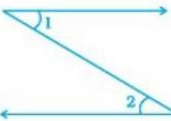
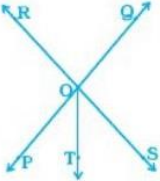
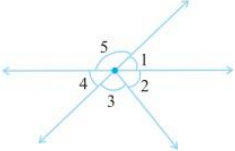
3a. The sum of measures of angles are _____ if they total to 180° .

3b. An angle which is equal to its complement is _____.

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4. Fill the table below.

Figure	Linear Pair	Vertically Opposite angles
<p>a)</p> 		
<p>b)</p> 		
<p>c)</p> 		
<p>d)</p> 		
<p>e)</p> 		

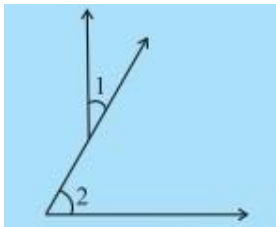
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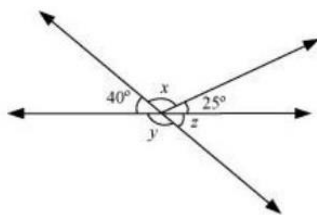
Section 2

5. Identify which of the following pairs of angles are complementary and which are supplementary? i) $65^\circ, 115^\circ$ ii) $63^\circ, 27^\circ$ iii) $112^\circ, 68^\circ$ iv) $130^\circ, 50^\circ$ v) $45^\circ, 45^\circ$ vi) $80^\circ, 10^\circ$.

6. Are the angles 1 and 2 in figure adjacent? Justify your answer.



7. Find the values of the angles x, y, z .



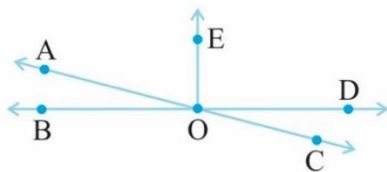
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8. Among the supplementary angles, the measure of the larger angle is 44° more than the measure of the smaller. Find their measures.

Section 3

9. In the figure, name the following angles. a) Obtuse vertically opposite angles b) adjacent complementary angles c) Equal supplementary angles d) Unequal supplementary angles e) Adjacent angles that do not form a linear pair.



10. What is the type of other angle of a linear pair if a) one of its angles is acute. b) one of its angles is obtuse. c) One of its angles is right.