

CBSE Class 6 Mathematics
Chapter 2: Lines and Angles
Practice Worksheet — Set 1

Lines and Angles | Fill in the Blanks • MCQ • True/False • Solve

Name: _____ Class: 6 _____ Section: _____ Date: _____

Section A: Fill in the Blanks (1 mark each)

1. A _____ is a portion of a line with two end points.
2. An angle whose measure is exactly 90° is called a _____ angle.
3. Two lines that meet at right angles are called _____ lines.
4. A straight angle measures _____ degrees.
5. A ray has _____ end point(s).

Section B: Multiple Choice Questions (1 mark each)

1. An angle greater than 90° but less than 180° is called:
(a) Acute angle (b) Obtuse angle (c) Right angle (d) Reflex angle
2. How many end points does a line have?
(a) 0 (b) 1 (c) 2 (d) Infinite
3. The angle made by the hands of a clock at 3 o'clock is:
(a) 45° (b) 60° (c) 90° (d) 120°
4. An angle greater than 180° and less than 360° is a:
(a) Acute angle (b) Obtuse angle (c) Reflex angle (d) Straight angle
5. The instrument used to measure an angle is called a:
(a) Compass (b) Protractor (c) Ruler (d) Divider

Section C: True or False (1 mark each)

1. A line segment has a definite length.
2. A ray can be extended endlessly in both directions.
3. An acute angle is always less than 90° .
4. Two rays with a common starting point form an angle.
5. A full turn is equal to 180° .

Section D: Solve the Following (2 marks each)

1. Draw and label a line segment AB of length 6 cm.
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2. Identify the vertex and arms of $\angle PQR$.

3. Draw an acute angle and a reflex angle. Label them clearly.

4. Two angles $\angle AOB$ and $\angle BOC$ lie on a straight line. If $\angle AOB = 65^\circ$, find $\angle BOC$.

5. Using a protractor, draw an angle of 75° .

Answer Key — Set 1

Section A: Fill in the Blanks

1. line segment
2. right
3. perpendicular
4. 180
5. one

Section B: Multiple Choice Questions

1. (b) Obtuse angle
2. (a) 0
3. (c) 90°
4. (c) Reflex angle
5. (b) Protractor

Section C: True or False

1. True
2. False — a ray extends endlessly in only one direction
3. True
4. True
5. False — a full turn is 360°

Section D: Solve the Following

1. Draw a straight segment marking points A and B, 6 cm apart, using a ruler.
2. Vertex = Q; Arms = QP and QR.
3. Diagrams: acute angle $< 90^\circ$, reflex angle between 180° and 360° .
4. $\angle BOC = 180^\circ - 65^\circ = 115^\circ$ (linear pair on a straight line).
5. Use the base line of the protractor and mark 75° from 0° , then join the point to the vertex.

Practice Worksheet — Set 2

Lines and Angles | Fill in the Blanks • MCQ • True/False • Solve

Name: _____ Class: 6 _____
Section: _____ Date: _____

Section A: Fill in the Blanks (1 mark each)

1. The point where two rays meet to form an angle is called the _____.
2. An angle equal to 360° is called a _____ angle.
3. Two rays forming an angle are called the _____ of the angle.
4. The symbol used to denote an angle is _____.
5. A line extends endlessly in _____ direction(s).

Section B: Multiple Choice Questions (1 mark each)

1. Which of these is a model for a ray?
(a) Edge of a book (b) Beam of light from a torch (c) String pulled taut (d) Boundary of a football field
2. $\angle ABC = 40^\circ$. This angle is:
(a) Right (b) Acute (c) Obtuse (d) Reflex
3. A protractor measures angles from 0° to:
(a) 90° (b) 180° (c) 270° (d) 360°
4. The angle between the hands of a clock at 6 o'clock is:
(a) 90° (b) 150° (c) 180° (d) 270°
5. Which pair of angles always adds up to 180° ?
(a) Complementary angles (b) Vertically opposite angles (c) Linear pair (d) Reflex angles

Section C: True or False (1 mark each)

1. A right angle looks like the letter L.
2. The vertex of an angle is a fixed point, but its arms can be extended.
3. An obtuse angle can be exactly 90° .
4. A straight angle contains two right angles.
5. Perpendicular lines never meet.

Section D: Solve the Following (2 marks each)

1. Draw $\angle XYZ = 110^\circ$ and classify it.

2. How many right angles are formed when two perpendicular lines cross?

3. Two angles on a straight line are in the ratio 2:3. Find both angles.

4. Name three real-life objects that show an example of a right angle.

5. Draw a straight line and mark a point O on it. Draw a ray OP such that $\angle POA = 50^\circ$. Find $\angle POB$, where A and B are the two ends of the line.

Answer Key — Set 2

Section A: Fill in the Blanks

1. vertex
2. complete/whole
3. arms
4. $\angle$
5. two

Section B: Multiple Choice Questions

1. (b) Beam of light from a torch
2. (b) Acute
3. (b) 180°
4. (c) 180°
5. (c) Linear pair

Section C: True or False

1. True
2. True
3. False — an obtuse angle is strictly greater than 90°
4. True
5. False — perpendicular lines meet at a right angle

Section D: Solve the Following

1. $\angle XYZ = 110^\circ$ is an obtuse angle (between 90° and 180°).
2. Four right angles.
3. Sum = 180° ; parts = $2+3 = 5$; each part = 36° ; angles = 72° and 108° .
4. Corner of a book, edge of a window frame, corner of a table (any three valid examples).
5. $\angle POA + \angle POB = 180^\circ$ (linear pair), so $\angle POB = 180^\circ - 50^\circ = 130^\circ$.

Practice Worksheet — Set 3

Lines and Angles | Fill in the Blanks • MCQ • True/False • Solve

Name: _____ Class: 6 _____
Section: _____ Date: _____

Section A: Fill in the Blanks (1 mark each)

- Angles that are equal to 90° are called _____ angles.
- A line segment has a _____ length while a line has no fixed length.
- The common end point of two rays forming an angle is the _____.
- An angle between 0° and 90° is called an _____ angle.
- One complete rotation of a ray about its starting point measures _____ degrees.

Section B: Multiple Choice Questions (1 mark each)

- Which angle is formed by half a full turn?
(a) Right angle (b) Straight angle (c) Reflex angle (d) Acute angle
- AB and CD intersect at O. $\angle AOC$ and $\angle BOD$ are called:
(a) Adjacent angles (b) Vertically opposite angles (c) Complementary angles (d) Linear pair
- The angle bisector divides an angle into:
(a) Three equal parts (b) Two equal parts (c) Four equal parts (d) Unequal parts
- Which of the following is NOT a correct classification of angles?
(a) Acute (b) Obtuse (c) Circular (d) Reflex
- If one angle of a linear pair is 118° , the other is:
(a) 52° (b) 62° (c) 72° (d) 82°

Section C: True or False (1 mark each)

- Vertically opposite angles are always equal.
- A ray has a fixed length like a line segment.
- All right angles are congruent (equal) to each other.
- The vertex of an angle can lie anywhere except at the meeting point of the arms.
- A quarter turn equals 90° .

Section D: Solve the Following (2 marks each)

- Two lines intersect and form four angles. If one angle is 72° , find the other three angles.

- Draw a right angle using paper folding and explain your method in two steps.

3. The angle of a door open is 130° . State whether it is acute, obtuse, right, or reflex.

4. Find the angle traced by the minute hand of a clock in 15 minutes.

5. Construct $\angle ABC = 65^\circ$ using a protractor and mark its arms and vertex.

Answer Key — Set 3

Section A: Fill in the Blanks

1. right
2. fixed/definite
3. vertex
4. acute
5. 360

Section B: Multiple Choice Questions

1. (b) Straight angle
2. (b) Vertically opposite angles
3. (b) Two equal parts
4. (c) Circular
5. (b) 62°

Section C: True or False

1. True
2. False — a ray extends endlessly and has no fixed length
3. True
4. False — the vertex is exactly at the meeting point of the arms
5. True

Section D: Solve the Following

1. Opposite angle = 72° (vertically opposite); adjacent angles = $180^\circ - 72^\circ = 108^\circ$ each.
2. Fold the paper once to get a straight crease; fold again so the crease matches itself — the new fold gives a right angle.
3. 130° lies between 90° and 180° , so it is an obtuse angle.
4. Minute hand covers 360° in 60 minutes $\rightarrow 6^\circ$ per minute $\rightarrow 15 \times 6^\circ = 90^\circ$.
5. Arms = BA and BC; Vertex = B; angle drawn using the 65° mark on the protractor.

