MATHEMATICS

Board – CBSE	Class – 9	Topic – Lines and Angles

Multiple Choice Question Type

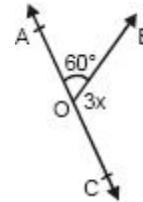1. What is the measure of an angle whose measure is 32° less than its supplement?

   (A) 148°   (B) 60°

   (C) 74°   (D) 55°

2. If the supplement of an angle is 4 times of its compliment, find the angle.

   (A) 60°   (B) 50°

   (C) 80°   (D) 100°

3. In a right angled triangle where angle A= 90° and AB = A(C) What are the values of angle (B)

   (A) 45°   (B) 35°

   (C) 75°   (D) 65°

4. What is the supplement of 105°

   (A) 65°   (B) 75°

   (C) 85°   (D) 95°

5. If ∠S and 100° form a linear pair. What is the measure of ∠S

   (A) 180°   (B) 120°

   (C) 90°   (D) 80°

6. Find the angle which is four times its compliment is 10° less than twice its complement.

   (A) 15°   (B) 10°

   (C) 25°   (D) 5°

ANSWERS

1. C
2. A
3. A
4. B
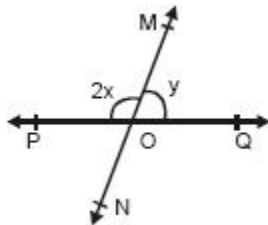5. D
6. D

Long Answer Type Question

1. In the given figure, AOC is a line, find x.

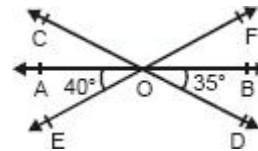2. In the given figure, $\overline{PQ}$ and $\overline{MN}$ intersect at O.
   (a) Determine y, when x = 60°.
   (b) Determine x, when y = 40°.

3. In the given figure, lines Ab, CD and EF intersect at O.
   Find the measure of ∠AOC, ∠COF.

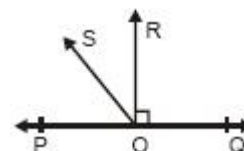4. The exterior angles obtained on producing the base of a triangle both ways are 100° and 120°. Find all the angles.

5. ΔABC is right angled at A and AL ⊥ B(C) Prove that ∠BAL = ∠AC(D)

6. If two parallel lines are intersected by a transversal, prove that the bisectors of the two pairs of interior angles enclose a rectangle.
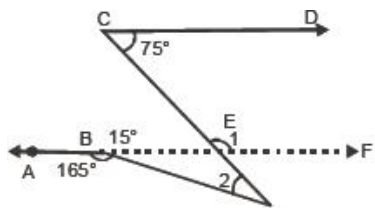
7. The angles of a triangle are arranged in ascending order of magnitude. If the difference between two consecutive angles is 10°, find all the three angles.

8. In the given figure, POQ is a line. Ray $\overline{OR}$ ⊥ PQ, $\overline{OS}$ is another ray lying between rays $\overline{OP}$ and $\overline{OR}$ .Prove that:

   $$\angle ROS = \frac{1}{2}(\angle QOS - \angle POS)$$

9. Can a triangle have two obtuse angles? Give reason for your answer.

10. How many triangles can be drawn having its angles as 45°, 64° and 72°? Give reason for your answer.

11. In the following figure AB || C(D) Find the measure of ∠BO(C)

12. If P,Q and R are collinear points, then name all the line segments determined by them.

13. Find the complement of 36°.

14. Find the measure of an angle which is 26° more than its complement.

15. If a ray CD stands on a line AB, then prove that
Angle ACD + angle BCD=180°

16. If PQ and RS are two intersecting lines which meet ar point O. If angle POR :angle ROQ= 5:7. Find all the angles.

17. Prove that the angle formed by the bisector of interior angle A and the bisector of exterior angle B of a triangle ABC is half of angle (C)

18. Sides QP and RQ of triangle PQR are produced to point S and T respectively. If angle SPR= 35° and angle PQT=70°find angle SQR and angle PRQ.

19. Of the three angles of a triangle, one is double the smallest and another is thrice times the smaller. Find the angles.