

Lines and Angles

Question 1.

In a right-angled triangle where angle $A = 90^\circ$ and $AB = AC$. What are the values of angle B?

- (a) 45°
- (b) 35°
- (c) 75°
- (d) 65°

Answer: (a) 45°

Question 2.

In a triangle ABC if $\angle A = 53^\circ$ and $\angle C = 44^\circ$ then the value of $\angle B$ is:

- (a) 46°
- (b) 83°
- (c) 93°
- (d) 73°

Answer: (b) 83°

Question 3.

Given four points such that no three of them are collinear, then the number of lines that can be drawn through them are:

- (a) 4 lines
- (b) 8 lines
- (c) 6 lines
- (d) 2 lines

Answer: (c) 6 lines

Question 4.

If one angle of triangle is equal to the sum of the other two angles then triangle is :

- (a) Acute triangle
- (b) Obtuse triangle

- (c) Right triangle
- (d) None of these

Answer: (c) Right triangle

Question 5.

How many degrees are there in an angle which equals one-fifth of its supplement?

- (a) 15°
- (b) 30°
- (c) 75°
- (d) 150°

Answer: (b) 30°

Question 6.

Sum of the measure of an angle and its vertically opposite angle is always.

- (a) Zero
- (b) Thrice the measure of the original angle
- (c) Double the measure of the original angle
- (d) Equal to the measure of the original angle

Answer: (c) Double the measure of the original angle

Question 7.

If two parallel lines are cut by a transversal, then the pairs of corresponding angles are congruent.

- (a) Equal
- (b) Complementary
- (c) Supplementary
- (d) corresponding

Answer: (d) corresponding

Question 8.

The bisectors of the base angles of an isosceles triangle ABC, with $AB = AC$, meet at O. If $\angle B = \angle C = 50^\circ$. What is the measure of angle O?

- (a) 120°
- (b) 130°
- (c) 80°
- (d) 150°

Answer: (b) 130°

Question 9.

The angles of a triangle are in the ratio 2 : 3 : 4. The angles, in order, are :

- (a) $80^\circ, 40^\circ, 60^\circ$
- (b) $20^\circ, 60^\circ, 80^\circ$
- (c) $40^\circ, 60^\circ, 80^\circ$
- (d) $60^\circ, 40^\circ, 80^\circ$

Answer: (c) $40^\circ, 60^\circ, 80^\circ$

Question 10.

An acute angle is:

- (a) More than 90 degrees
- (b) Less than 90 degrees
- (c) Equal to 90 degrees
- (d) Equal to 180 degrees

Answer: (b) Less than 90 degrees

Question 11.

Two parallel lines intersect at:

- (a) One point
- (b) Two points
- (c) Three points
- (d) Null

Answer: (d) Null

Question 12.

The angle between the bisectors of two adjacent supplementary angles is :

- (a) Acute angle
- (b) Right angle
- (c) Obtuse angle
- (d) None of these

Answer: (b) Right angle

Question 13.

Which of the following statements is false?

- (a) A line can be produced to any desired length.
- (b) Through a given point, only one straight line can be drawn.
- (c) Through two given points, it is possible to draw one and only one straight line
- (d) Two straight lines can intersect in only one point

Answer: (b) Through a given point, only one straight line can be drawn.

Question 14.

Two parallel lines have:

- (a) A common point
- (b) Two common points
- (c) No common point
- (d) Infinite common points

Answer: (c) No common point

Question 15.

If a side of a triangle is produced, then the exterior angle so formed is equal to the sum of the _____ interior opposite angles.

- (a) Two
- (b) Four
- (c) One
- (d) Three

Answer: (a) Two

Question 16.

If two straight lines are perpendicular to a line l , then they are.

- (a) The lines intersect each other when extended
- (b) Parallel to each other
- (c) The angle between the two lines is 180°
- (d) Perpendicular to each other

Answer: (b) Parallel to each other

Question 17.

Two angles whose measures are a & b are such that $2a - 3b = 60^\circ$ then $5b = ?$, if they form a linear pair:

- (a) 120°
- (b) 300°
- (c) 60°
- (d) None of these

Answer: (b) 300°

Question 18.

An angle is 14° more than its complementary angle, then angle is :

- (a) 38°
- (b) 52°
- (c) 50°
- (d) None of these

Answer: (b) 52°

Question 19.

Find the measure of the angle which is complement of itself.

- (a) 30°
- (b) 90°
- (c) 45°
- (d) 180°

Answer: (c) 45°

Question 20.

X lies in the interior of $\angle BAC$. If $\angle BAC = 70^\circ$ and $\angle BAX = 42^\circ$ then $\angle XAC = ?$

- (a) 28°
- (b) 29°
- (c) 27°
- (d) 30°

Answer: (a) 28°

Question 21.

Two lines are parallel to each other, only when

- (a) They do not intersect each other when extended on either side
- (b) The lines lie on the same plane
- (c) They are parallel to the plane in which they lie
- (d) Their point of intersection is a unique point

Answer: (a) They do not intersect each other when extended on either side

Question 22.

If two lines intersect each other, then the vertically opposite angles are:

- (a) Equal
- (b) Unequal
- (c) Cannot be determined
- (d) None of the above

Answer: (a) Equal
