

# 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)  $45^\circ$
- (b)  $35^\circ$
- (c)  $75^\circ$
- (d)  $65^\circ$

Answer: (a)  $45^\circ$

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Question 2.

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

- (a)  $46^\circ$
- (b)  $83^\circ$
- (c)  $93^\circ$
- (d)  $73^\circ$

Answer: (b)  $83^\circ$

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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

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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

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Question 5.

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

- (a)  $15^\circ$
- (b)  $30^\circ$
- (c)  $75^\circ$
- (d)  $150^\circ$

Answer: (b)  $30^\circ$

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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

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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

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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)  $120^\circ$
- (b)  $130^\circ$
- (c)  $80^\circ$
- (d)  $150^\circ$

Answer: (b)  $130^\circ$

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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)  $40^\circ$ ,  $60^\circ$ ,  $80^\circ$

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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

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Question 11.

Two parallel lines intersect at:

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

Answer: (d) Null

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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

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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.

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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

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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

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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  $180^\circ$
- (d) Perpendicular to each other

Answer: (b) Parallel to each other

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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)  $120^\circ$
- (b)  $300^\circ$
- (c)  $60^\circ$
- (d) None of these

Answer: (b)  $300^\circ$

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Question 18.

An angle is  $14^\circ$  more than its complementary angle, then angle is :

- (a)  $38^\circ$
- (b)  $52^\circ$
- (c)  $50^\circ$
- (d) None of these

Answer: (b)  $52^\circ$

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Question 19.

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

- (a)  $30^\circ$
- (b)  $90^\circ$
- (c)  $45^\circ$
- (d)  $180^\circ$

Answer: (c)  $45^\circ$

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Question 20.

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

- (a)  $28^\circ$
- (b)  $29^\circ$
- (c)  $27^\circ$
- (d)  $30^\circ$

Answer: (a)  $28^\circ$

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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

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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

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