

Lines and Angles

MCQ Questions

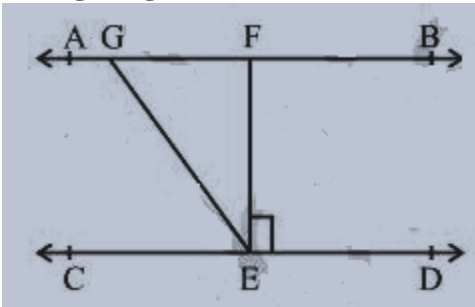
1. Intersecting lines cut each other at:

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

2. Two parallel lines intersect at:

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

3. If $AB \parallel CD$, $EF \perp CD$ and $\angle GED = 135^\circ$ as per the figure given below.



The value of $\angle AGE$ is:

- a) 120°
- b) 140°
- c) 90°
- d) 135°

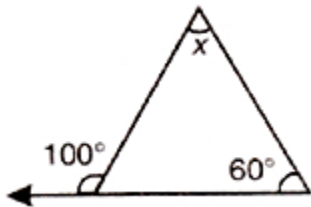
4. If two lines intersect each other, then the vertically opposite angles are:

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

5. Two angles whose sum is equal to 180° are called:

- a) Vertically opposite angles
- b) Complementary angles
- c) Adjacent angles
- d) Supplementary angles

6. Value of x in the figure below is:



- a) 20°
- b) 40°
- c) 80°
- d) 160°

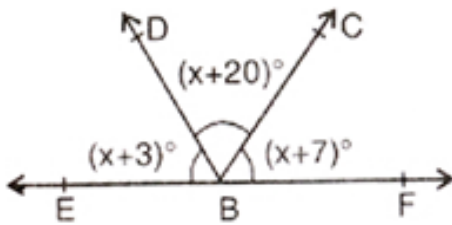
7. If two complementary angles are in the ratio 13 : 5, then the angles are:

- a) $13x^\circ, 5x^\circ$
- b) $25^\circ, 65^\circ$
- c) $65^\circ, 25^\circ$
- d) $65^\circ, 35^\circ$

8. If $AB = x + 3$, $BC = 2x$ and $AC = 4x - 5$, then for what value of 'x', B lies on AC?

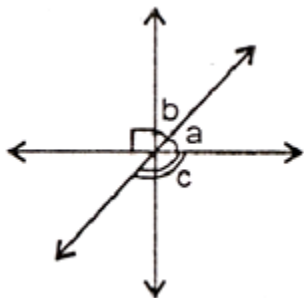
- a) 2
- b) 3
- c) 5
- d) 8

9. In the given figure, find the value of x:



- a) 40°
- b) 50°
- c) 60°
- d) 80°

10. In the given figure, if the angles a and b are in the ratio $2 : 3$, then angle c is:



- a) 90°
- b) 126°
- c) 144°
- d) Obtuse angle

1(a)	2(d)	3(d)	4(a)	5(d)	6(b)	7(c)	8(d)	9(b)	10(c)
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ASSERTION & REASONING QUESTIONS

DIRECTION: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.

1. Assertion: If angles 'a' and 'b' form a linear pair of angles and $a = 40^\circ$, then $b = 150^\circ$.

Reason: Sum of linear pair of angles is always 180° .

2. Assertion: If two interior angles on the same side of a transversal intersecting two parallel lines are in the ratio 5 : 4, then the greater of the two angles is 100° .

Reason: If a transversal intersects two parallel lines, then the sum of the interior angles on the same side of the transversal is 180° .

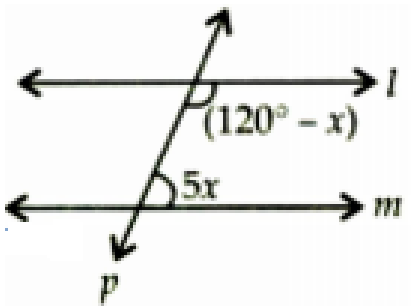
3. Assertion: An angle is 14° more than its complementary angle, then angle is 52° .

Reason: Two angles are said to be supplementary if their sum of measure of angles is 180° .

4. Assertion: Supplement of angle is one fourth of itself. The measure of the angle is 144°

Reason: Two angles are said to be supplementary if their sum of measure of angles is 180° .

5. Assertion: The value of x from the adjoining figure, if $l \parallel m$ is 15° .



Reason: If two parallel lines are intersected by a transversal, then each pair of corresponding angles so formed is equal.

6. Assertion: If two internal opposite angles of a triangle are equal and external angle is given to be 110° , then each of the equal internal angle is 55° .

Reason: A triangle with one of its angle 90° , is called a right triangle.

7. Assertion: Sum of the pair of angles 120° and 60° is supplementary.

Reason: Two angles, the sum of whose measures is 180° , are called supplementary angles.

8. Assertion: A triangle can have two obtuse angles.

Reason: The sum of all the interior angles of a triangle is 180° .

9. Assertion: The angles of a triangle are in the ratio 2 : 3 : 4. The largest angle of the triangle is 80° . Reason: The sum of all the interior angles of a triangle is 180° .

10. Assertion: The angles of a triangle are in the ration 3 : 5 : 7. The triangle is acute angled.

Reason: The sum of angles that are formed on a straight line is equal to 180° .

1(d)	2(a)	3(b)	4(a)	5(b)	6(b)	7(a)	8(d)	9(a)	10(b)
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