

Grade 7 Lines and Angles Worksheets

Grade 7 Maths Lines and Angles Multiple Choice Questions (MCQs)

1. If two lines intersect at a point, then the vertically opposite angles are **always**

- (a) equal
- (b) unequal
- (c) supplementary
- (d) Complementary

2. Two angles forming a linear pair are

- (a) equal
- (b) supplementary
- (c) unequal
- (d) Complementary

3. A line that intersects two or more lines at distinct points is called:

- (a) Parallel
- (b) transversal
- (c) intersecting
- (d) none of these

4. If two adjacent angles are supplementary, then they form

- (a) corresponding angles
- (b) vertically opposite angles
- (c) a linear pair of angles
- (d) a ray

5. If two angles are supplementary, then the sum of their measures is

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- (a) 90°
- (b) 180°
- (c) 360°
- (d) 45°

6. If two angles are complementary, then the sum of their measures is

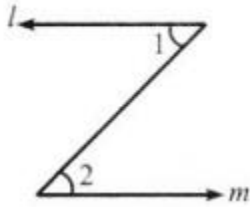
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- (a) 45°
- (b) 180°
- (c) 90°
- (d) 360°

7. If $\parallel m$, then $\angle 1 = \angle 2$ because they are

- (a) corresponding angles
- (b) vertically opposite angles
- (c) alternate interior angles

(d) supplementary angles



8. If two parallel lines are cut by a transversal, each pair of the corresponding angles are in measure.

- (a) equal
- (b) unequal
- (c) supplementary
- (d) complementary

9. The difference in the measures' of two complementary angles is 12° . Find the measures of the angles.

- (a) 51° and 49°
- (b) 51° and 39°
- (c) 60° and 30°
- (d) 50° and 40°

10. What is the measure of the complement of 41° ?

- (a) 139°
- (b) 49°
- (c) 35°
- (d) 45°

11. Identify which of the following pairs of angles are complementary?

- (a) 65° , 115°
- (b) 63° , 27°
- (c) 112° , 68°
- (d) 130° , 50°

12. Identify which of the following pairs of angles are supplementary?

- (a) 80° , 10°
- (b) 63° , 27°
- (c) 112° , 68°
- (d) 45° , 45°

13. Find the angle, which is equal to its complement?

- (a) 30°
- (b) 25°
- (c) 35°
- (d) 45°

14. Find the angle, which is equal to its supplement?

- (a) 60°
- (b) 90°

(c) 180°

(d) none of these

15. **The angle which is four times its complement is:**

(a) 60°

(b) 30°

(c) 45°

(d) 72°

16. **Which pair of following angles are complementary?**

(a) $70^\circ, 20^\circ$

(b) $75^\circ, 25^\circ$

(c) $48^\circ, 52^\circ$

(d) $45^\circ, 55^\circ$

17. **Which pair of following angles are supplementary?**

(a) $110^\circ, 50^\circ$

(b) $105^\circ, 65^\circ$

(c) $50^\circ, 130^\circ$

(d) $45^\circ, 45^\circ$

18. **What is complement of 63° ?**

(a) 18°

(b) 27°

(c) 30°

(d) 21°

19. **Find the supplement of 105° .**

(a) 80°

(b) 65°

(c) 75°

(d) 100°

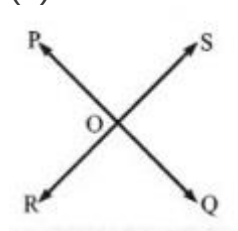
20. **Two lines PQ and RS intersect at O. If $\angle POR = 50^\circ$, then value of $\angle ROQ$ is:**

(a) 120°

(b) 130°

(c) 90°

(d) 150°



Grade 7 Maths Lines and Angles Fill In The Blanks

1. Complementary angle of 65° is

2. Supplementary angle of 45° is

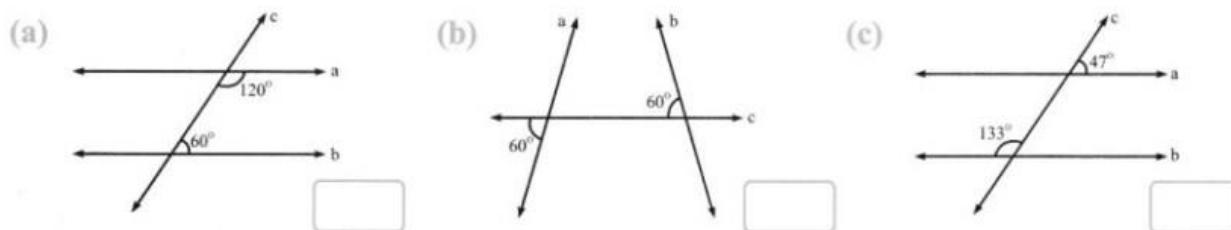
3. If line $AB \parallel CD$ and LM is transversal, sum of two interior angles on the same side of transversal is equal to
4. An angle is formed by the intersection of
5. If two lines intersect at a point and if one pair of vertically opposite angles are acute angles, then the other pair of vertically opposite angles are

Grade 7 Maths Lines and Angles True(T) And False(F)

1. If measure of an angle is 90° then its supplement angle will be greater than 90° .
2. Two obtuse angles form a linear pair.
3. Two acute angles form a linear pair.
4. If two adjacent angles are complementary they form a right angle.
5. Sum of interior angles on the same side of a transversal with two parallel lines is 90° .

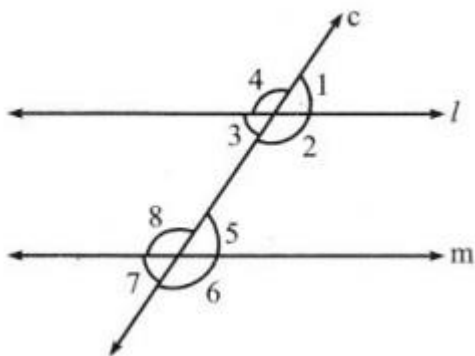
Grade 7 Maths Lines and Angles Very Short Answer Type Questions

1. In the given figures, decide whether a is parallel to b or not.



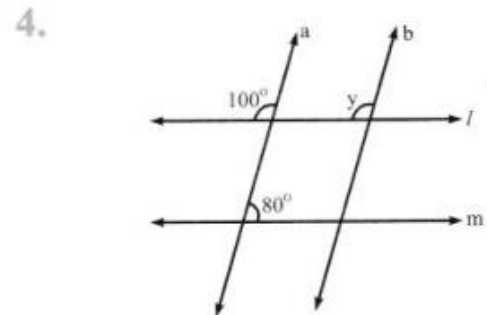
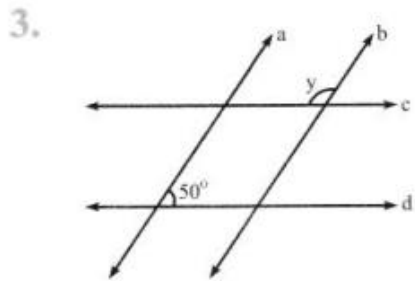
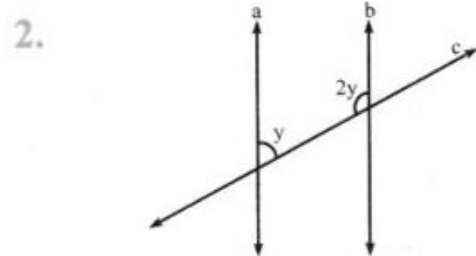
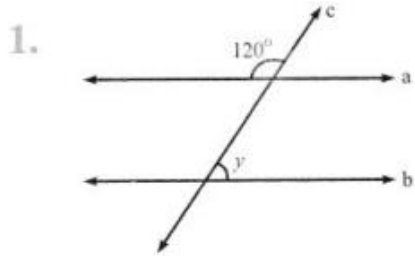
2. State the property that is used in each of the following statements:

- (a) If $l \parallel m$, then $\angle 4 = \angle 8$
- (b) If $\angle 1 = \angle 7$, then $l \parallel m$
- (c) If $\angle 3 + \angle 8 = 180^\circ$, then $l \parallel m$



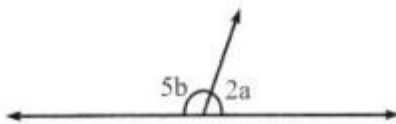
Grade 7 Maths Lines and Angles Short Answer Type Questions

Find the value of y in each of the following figure if $a \parallel b$.



Grade 7 Maths Lines and Angles Long Answer Type Questions

1. Out of a pair of complementary angles, one is two third of the other. Find the angles.
2. In the following figure name the In fig, if $a = 40^\circ$. Then what is the value of b .



3. In the following figure name the following pairs of angles:
 - (a) Obtuse vertically opposite angles.
 - (b) Adjacent complement angles.
 - (c) Equal supplementary angles.
 - (d) Unequal supplementary angles.
 - (e) Adjacent angles that do not form a linear pair.

