

NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1: NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1 focus on the fundamental properties of triangles and their applications. This exercise introduces the concept of similarity of triangles, exploring criteria such as AAA (Angle-Angle-Angle), SSS (Side-Side-Side), and SAS (Side-Angle-Side) for determining similarity.

These solutions provide step-by-step explanations, helping students understand the geometric principles involved. The exercise lays a strong foundation for solving complex problems related to proportionality, congruence, and other triangle-based theorems. With clear and concise solutions, students can enhance their problem-solving skills, boost conceptual clarity, and confidently approach exam questions based on triangles and their properties.

NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1 Overview

NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1 on Triangles are essential for mastering the concept of similarity in geometry. This exercise introduces key criteria such as AAA, SSS, and SAS, helping students understand how to determine triangle similarity, a fundamental skill in geometry.

These solutions are crucial for developing logical reasoning and analytical skills, as they form the basis for advanced topics in trigonometry and coordinate geometry. The step-by-step explanations simplify complex problems, ensuring conceptual clarity and better retention. By practicing these solutions, students build a strong foundation for exams and real-world applications of geometric principles.

NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1 Triangles

Below is the NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1 Triangles -

1. Fill in the blanks using correct word given in the brackets:-

(i) All circles are _____. (congruent, similar)

Answer: Similar

(ii) All squares are _____. (similar, congruent)

Answer: Similar

(iii) All _____ triangles are similar. (isosceles, equilateral)

Answer: Equilateral

(iv) Two polygons of the same number of sides are similar, if (a) their corresponding angles are _____ and (b) their corresponding sides are _____. (equal, proportional)

Answer: (a) Equal

(b) Proportional

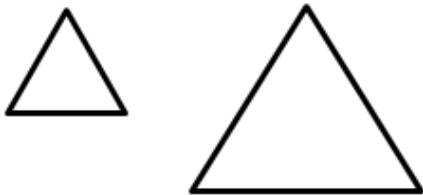
2. Give two different examples of pair of

(i) Similar figures

(ii) Non-similar figures

Solution:

(i) Example of two similar figure;



Two Equilateral Triangle



Two Rectangle

(ii) Example of two Non-similar figure;



Triangle

Rhombus

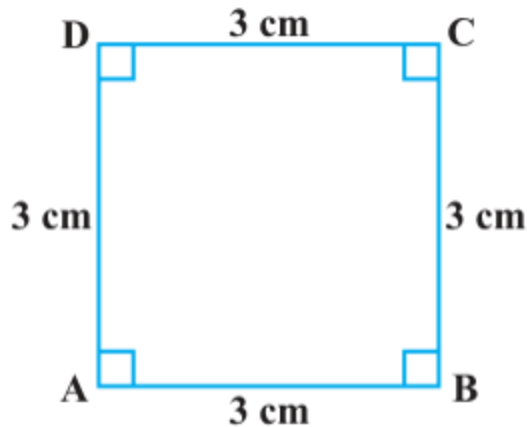
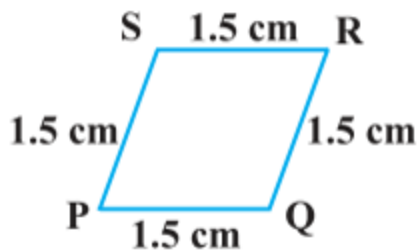


Rectangle



Trapezium

3. State whether the following quadrilaterals are similar or not:



Solution:

From the given two figures, we can see their corresponding angles are different or unequal. Therefore, they are not similar.

Benefits of Using NCERT Solutions for Class 10 Maths Chapter 6 Exercise 6.1

Enhanced Conceptual Understanding:

These solutions provide detailed explanations of the similarity criteria for triangles, such as AAA, SSS, and SAS. This ensures students grasp the fundamental concepts thoroughly, enabling them to solve related problems confidently.

Stronger Mathematical Foundation:

By focusing on the properties of similar triangles, this exercise builds a strong base for advanced mathematical topics like trigonometry, coordinate geometry, and calculus. A clear understanding here aids in tackling complex problems in higher studies.

Exam-Oriented Preparation:

The solutions are aligned with the NCERT curriculum, ensuring relevance to board exam patterns. Practicing these problems helps students gain familiarity with question formats, improving their performance in exams.

Step-by-Step Problem Solving:

Each solution is broken down into manageable steps, making it easier for students to follow the logic and approach. This systematic method enhances analytical thinking and problem-solving skills.

Time Management and Accuracy:

By practicing with these solutions, students learn efficient methods to solve problems quickly and accurately, a crucial skill for board exams and competitive tests.

Practical Applications:

Understanding the principles of similarity in triangles equips students to apply these concepts in real-world scenarios, such as architectural designs, engineering projects, and navigation systems.