

RS Aggarwal Solutions for Class 10 Maths Chapter 6 : Chapter 6 of RS Aggarwal's Class 10 Maths book covers the ratios of some specific angles, which is an important part of trigonometry.

This chapter explains the trigonometric ratios for angles like 0° , 30° , 45° , 60° , and 90° . These ratios are essential because they help solve many trigonometry problems.

The RS Aggarwal Solutions provide clear, step-by-step answers to all the exercises in this chapter, making it easier for students to understand. These solutions help students practice and learn the trigonometric ratios well, building a strong base for future math topics. By working through these problems, students can improve their math skills and gain confidence.

RS Aggarwal Solutions for Class 10 Maths Chapter 6 Overview

The RS Aggarwal Solutions for Class 10 Maths Chapter 6 prepared by subject experts of Physics Wallah provide detailed and precise explanations for the topic of trigonometric ratios of specific angles. These experts ensure that the solutions are easy to understand, helping students grasp the concepts of angles such as 0° , 30° , 45° , 60° , and 90° thoroughly.

By following these solutions, students can effectively practice and master the trigonometric ratios, which are fundamental to solving various math problems. The expertise of Physics Wallah's subject specialists ensures that the explanations are clear and accurate, making these solutions an invaluable resource for Class 10 students.

RS Aggarwal Solutions for Class 10 Maths Chapter 6 PDF

The RS Aggarwal Solutions for Class 10 Maths Chapter 6 PDF is a valuable resource for students aiming to master the topic of trigonometric ratios of specific angles.

You can access the PDF using the link available below making it a convenient and essential study tool for Class 10 students.

RS Aggarwal Solutions for Class 10 Maths Chapter 6 PDF

Ratios of Some Particular Angles

The ratios of some particular angles are the trigonometric ratios for the standard angles 0° , 30° , 45° , 60° , and 90° . These specific angles are fundamental in trigonometry and are used frequently in various mathematical problems and applications. The primary trigonometric ratios include sine (sin), cosine (cos), and tangent (tan), as well as their reciprocals cosecant (csc), secant (sec), and cotangent (cot).

Here are the trigonometric ratios for these particular angles:

0°:

- **$\sin 0^\circ = 0$:** This means the sine of a 0° angle is 0.
- **$\cos 0^\circ = 1$:** The cosine of a 0° angle is 1.
- **$\tan 0^\circ = 0$:** The tangent of a 0° angle is 0.
- **$\csc 0^\circ = \text{Undefined}$:** The cosecant (reciprocal of sine) of a 0° angle is undefined because division by zero is not possible.
- **$\sec 0^\circ = 1$:** The secant (reciprocal of cosine) of a 0° angle is 1.
- **$\cot 0^\circ = \text{Undefined}$:** The cotangent (reciprocal of tangent) of a 0° angle is undefined because division by zero is not possible.

30°:

- **$\sin 30^\circ = 1/2$:** This means the sine of a 30° angle is 0.5.
- **$\cos 30^\circ = \sqrt{3}/2$:** The cosine of a 30° angle is approximately 0.866.
- **$\tan 30^\circ = 1/\sqrt{3}$ or $\sqrt{3}/3$:** The tangent of a 30° angle is approximately 0.577.
- **$\csc 30^\circ = 2$:** The cosecant of a 30° angle is 2.
- **$\sec 30^\circ = 2/\sqrt{3}$ or $2\sqrt{3}/3$:** The secant of a 30° angle is approximately 1.154.
- **$\cot 30^\circ = \sqrt{3}$:** The cotangent of a 30° angle is approximately 1.732.

45°:

- **$\sin 45^\circ = 1/\sqrt{2}$ or $\sqrt{2}/2$:** The sine of a 45° angle is approximately 0.707.
- **$\cos 45^\circ = 1/\sqrt{2}$ or $\sqrt{2}/2$:** The cosine of a 45° angle is also approximately 0.707.
- **$\tan 45^\circ = 1$:** The tangent of a 45° angle is 1.
- **$\csc 45^\circ = \sqrt{2}$:** The cosecant of a 45° angle is approximately 1.414.
- **$\sec 45^\circ = \sqrt{2}$:** The secant of a 45° angle is approximately 1.414.
- **$\cot 45^\circ = 1$:** The cotangent of a 45° angle is 1.

60°:

- **$\sin 60^\circ = \sqrt{3}/2$:** This means the sine of a 60° angle is approximately 0.866.
- **$\cos 60^\circ = 1/2$:** The cosine of a 60° angle is 0.5.
- **$\tan 60^\circ = \sqrt{3}$:** The tangent of a 60° angle is approximately 1.732.
- **$\csc 60^\circ = 2/\sqrt{3}$ or $2\sqrt{3}/3$:** The cosecant of a 60° angle is approximately 1.154.
- **$\sec 60^\circ = 2$:** The secant of a 60° angle is 2.
- **$\cot 60^\circ = 1/\sqrt{3}$ or $\sqrt{3}/3$:** The cotangent of a 60° angle is approximately 0.577.

90°:

- **$\sin 90^\circ = 1$:** This means the sine of a 90° angle is 1.
- **$\cos 90^\circ = 0$:** The cosine of a 90° angle is 0.
- **$\tan 90^\circ = \text{Undefined}$:** The tangent of a 90° angle is undefined because it involves division by zero.

- **$\csc 90^\circ = 1$:** The cosecant of a 90° angle is 1.
- **$\sec 90^\circ = \text{Undefined}$:** The secant of a 90° angle is undefined because it involves division by zero.
- **$\cot 90^\circ = 0$:** The cotangent of a 90° angle is 0.

RS Aggarwal Solutions for Class 10 Maths Chapter 6 Ratios of Some Particular Angles

Here we have provided RS Aggarwal Solutions for Class 10 Maths Chapter 6 for the ease of students so that they can prepare better for their exams.

RS Aggarwal Solutions for Class 10 Maths Chapter 6

RS Aggarwal Solutions for Class 10 Maths Chapter 6 Exercise 6

Benefits of RS Aggarwal Solutions for Class 10 Maths Chapter 6 Ratios of Some Particular Angles

- **Comprehensive Understanding:** The solutions provide detailed explanations for each problem helping students gain a thorough understanding of the trigonometric ratios of specific angles such as 0° , 30° , 45° , 60° , and 90° .
- **Step-by-Step Solutions:** Each exercise is solved step-by-step which helps students follow the logic and methodology required to solve trigonometric problems accurately.
- **Concept Clarity:** By working through these solutions students can clarify their doubts and strengthen their grasp of trigonometric concepts ensuring they are well-prepared for exams.
- **Exam Preparation:** These solutions are aligned with the exam pattern and syllabus making them highly relevant for exam preparation. They help students familiarize themselves with the types of questions that may appear in exams.
- **Time Management:** With clear solutions students can learn how to solve problems more efficiently, which can help in managing time during exams.
- **Expert Guidance:** Prepared by subject experts from Physics Wallah these solutions ensure accuracy and adherence to the latest syllabus, providing reliable guidance to students.
- **Confidence Building:** Regular practice with these solutions can boost students confidence in their ability to tackle trigonometric problems, leading to better performance in exams.

- **Accessibility:** The solutions are available in a convenient PDF format, allowing students to access them easily and study at their own pace.
- **Foundation for Advanced Topics:** Understanding these fundamental trigonometric ratios is important for more advanced topics in mathematics, making these solutions a crucial part of a student's mathematical education.