

For each lesson please follow the link to Oak National Academy and watch the video, complete any worksheets and exit quiz.

Year 9

Week 1 – Maths Number – Surds and Trigonometry

# COMMUNITY

**Monday**

**Lesson 1 – Rational and irrational numbers**

In this lesson, you will learn to classify rational and irrational numbers.

<https://classroom.thenational.academy/lessons/rational-and-irrational-numbers-74t3at>

**TASKS: -**

1. Watch the video of the lesson
2. Download the worksheet and complete the tasks
3. What have you learnt? Complete the exit quiz

Appreciation of the value of belonging to a community where people and animals can live in harmony, and being aware of the online community and the opportunities and challenges this presents.

**Tuesday**

**Lesson 2 – Introduction to surds**

In this lesson, you will learn what a surd is and how to estimate the value of a surd.

<https://classroom.thenational.academy/lessons/introduction-to-surds-6xqp8c>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

**Wednesday**

**Lesson 3 – Surds and triangles**

In this lesson we will recap how to use Pythagorean theorem to find the length of missing sides in triangles leaving the answers in surd form.

<https://classroom.thenational.academy/lessons/surds-and-triangles-6nk3et>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

**Thursday**

**Lesson 4 – Manipulating surds**

In this lesson, we will look at basic surd rules in particular multiplication and division.

<https://classroom.thenational.academy/lessons/manipulating-surds-71j32e>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

**Friday**

**Lesson 5 – Varying the ratio of side lengths in right angle triangles**

In this lesson, you will learn about the ratio of side lengths in right angle triangles.

<https://classroom.thenational.academy/lessons/varying-the-ratio-of-side-lengths-in-right-angle-triangles-cmu36d>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz



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Year 9

Week 2 – Maths Number – Surds and Trigonometry

# COMMUNITY

**Monday**

**Lesson 6 – The case of 30 and 60 degrees**

In this lesson, we will look at the special cases of 30 and 60 degrees right angled-triangles.

<https://classroom.thenational.academy/lessons/the-case-of-30-and-60-degrees-6mrk2c>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

Appreciation of the value of belonging to a community where people and animals can live in harmony, and being aware of the online community and the opportunities and challenges this presents.

**Tuesday**

**Lesson 7 – The sine ratio**

In this lesson, you will develop an understanding of trigonometric ratios focusing on sine.

<https://classroom.thenational.academy/lessons/the-sine-ratio-61jpcr>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

**Wednesday**

**Lesson 8 – The sine and cosine ratios**

In this lesson, you will explore trigonometric ratios focusing on sine and cosine.

<https://classroom.thenational.academy/lessons/the-sine-and-cosine-ratios-60wk4d>

**TASKS: -**

1. Begin with introduction quiz
2. Watch the video lesson
3. Download the worksheet and complete the tasks
4. Complete the exit quiz

**Thursday**

**Lesson 9 – The sine and cosine ratios for 30 and 60 degrees**

In this lesson, we will learn how to find missing sides and angles using sine and cosine for 30 and 60 degrees.

<https://classroom.thenational.academy/lessons/the-sine-and-cosine-ratios-for-30-and-60-degrees-60r3ed>

**Lesson 10 – Finding the missing sides using sine and cosine for any angle**

In this lesson, we will learn how to find missing sides using sine and cosine for any angle.

<https://classroom.thenational.academy/lessons/finding-missing-sides-using-sine-and-cosine-for-any-angle-ccv3ac>

**TASKS: -**

5. Complete the introduction quiz
6. Watch the video of the lesson
7. Download the worksheet and complete the tasks
8. What have you learnt? Complete the exit quiz

**Friday**

**Lesson 11 – Using inverse sine and cosine to find missing angles**

In this lesson, we will use inverse sine and cosine to find missing angles.

<https://classroom.thenational.academy/lessons/using-inverse-sine-and-cosine-to-find-missing-angles-60v6cr>

**Lesson 12 – Sine and cosine graphs**

In this lesson, we will look at the sine and cosine graphs and compare them.

<https://classroom.thenational.academy/lessons/sine-and-cosine-graphs-c8v36t>

**TASKS: -**

1. Complete the introduction quiz
2. Watch the video of the lesson
3. Download the worksheet and complete the tasks
4. What have you learnt? Complete the exit quiz

