Trigonometry

IGCSE Mathematics · Vocabulary in context

Word	Example
Pythagoras' theorem /paɪˈθægərəs ˈθɪərəm/	**Pythagoras' theorem** says $a^2 + b^2 = c^2$. $a^2 + b^2 = c^2$
right-angled triangle /raɪt ˈæŋgld ˈtraɪæŋgl/	Pythagoras' theorem works in a **right-angled triangle**.
triangle /ˈtraɪæŋgl/	The angles in a **triangle** add to 180°. 180°
hypotenuse /haɪˈpɒtənjuːs/	The **hypotenuse** is the longest side of a right triangle.
opposite /ˈɒpəzɪt/	The **opposite** side is across from the angle.
adjacent /əˈdʒeɪsənt/	The **adjacent** side is next to the angle.
sine /saɪn/	**Sine** is opposite divided by hypotenuse.
cosine /ˈkəʊsaɪn/	**Cosine** is adjacent divided by hypotenuse.
tangent ratio /ˈtændʒənt ˈreɪʃɪəʊ/	The **tangent ratio** is opposite divided by adjacent.
angle of elevation /ˈæŋgl ɒv ˌelɪˈveɪʃn/	The **angle of elevation** is measured up from the horizontal.
angle of depression /ˈæŋgl ɒv dɪˈpreʃn/	The **angle of depression** is measured down from the horizontal.
perpendicular /ˌpɜːpənˈdɪkjʊlə/	The wall is **perpendicular** to the floor.
trigonometric equation /ˌtrɪgənəʊˈmetrɪk ɪˈkweɪʒn/	Solve the **trigonometric equation** $\sin x = 0.5$. $\sin x = 0.5$

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Word	Example
sine rule /saɪn ruːl/	Use the **sine rule** to find the missing side.
cosine rule /ˈkəʊsaɪn ruːl/	Use the **cosine rule** when you know two sides and the angle between them.
ambiguous case /æmˈbɪgjuːəs keɪs/	In the **ambiguous case**, the sine rule gives two possible angles.
plane /pleɪn/	Find the angle between the line and the **plane**.

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