



Cambridge IGCSE 0580

Trigonometry Vocabulary

三角学 (Trigonometry) 词汇卡

Topic 6 | Core & Extended

FREE | Cambridge 0580 | Bilingual 双语

📘 Bilingual Vocabulary Cards 双语词汇卡

🎓 For Chinese-English Math Education

适用于中英双语数学教学

👉 Vocab Tables ✂️ Printable Flashcards 📖 Core & Extended

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How to Use This Resource / 使用说明 **What's inside** / 内容概览

- ▣ **Vocabulary Tables** (p. 3–5) — 33 bilingual terms with pinyin & definitions
- ☒ **Flashcards** (p. 6–11) — 3 sets of printable cards, print front/back pages back-to-back
- ➥ **Extended labels** — Look for *(Ext.)* to spot Extended-only content



Differentiation Tips / 分层教学建议

- ★ **Core students** — Focus on terms without the *(Ext.)* marker
- ➥ **Extended students** — Learn all terms including *(Ext.)* items
- 👤 **Bilingual learners** — Use the Chinese and Pinyin columns for support
- 🖨 **Printing tip** — Print flashcard pages double-sided for front/back cards

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Also available: Number, Algebra, Coordinate Geometry, Geometry, Mensuration, Vectors & Statistics Vocabulary Cards

6.1–6.2 Pythagoras' Theorem & Trigonometric Ratios

C6.1–C6.2/E6.1–E6.2 勾股定理与三角比

III Pythagoras' Theorem | 勾股定理

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Pythagoras' theorem	勾股定理	gōu gǔ dìng lǐ	$a^2 + b^2 = c^2$; relates sides of a right-angled triangle
Hypotenuse	斜边	xié biān	The longest side; opposite the right angle
Right-angled triangle	直角三角形	zhí jiǎo sān jiǎo xíng	A triangle with one 90° angle
Right angle	直角	zhí jiǎo	An angle of exactly 90°
Opposite (side)	对边	duì biān	The side across from a given angle
Adjacent (side)	邻边	lín biān	The side next to a given angle (not the hypotenuse)

III Trigonometric Ratios | 三角比

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Sine (sin)	正弦	zhèng xián	$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$
Cosine (cos)	余弦	yú xián	$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$
Tangent (tan)	正切	zhèng qiē	$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$
SOHCAHTOA	三角比口诀	sān jiǎo bǐ kǒu jué	Memory aid: Sin=O/H, Cos=A/H, Tan=O/A
Inverse trigonometric function	反三角函数	fǎn sān jiǎo hán shù	\sin^{-1} , \cos^{-1} , \tan^{-1} ; used to find an angle

6.2–6.4 Applications & Trigonometric Functions

C6.2/E6.2–E6.4 应用与三角函数

☰ Applications | 应用

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Angle of elevation	仰角	yǎng jiǎo	Angle measured upwards from the horizontal (Ext.)
Angle of depression	俯角	fǔ jiǎo	Angle measured downwards from the horizontal (Ext.)
Perpendicular distance	垂直距离	chuí zhí jù lí	Shortest distance from a point to a line (Ext.)
Line of sight	视线	shì xiàn	The straight line from observer to object
Horizontal	水平的	shuǐ píng de	Level; parallel to the ground

☰ Exact Values & Trig Graphs | 精确值与三角图像

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Exact value	精确值	jīng què zhí	Values like $\sin 30^\circ = \frac{1}{2}$, without rounding (Ext.)
Trigonometric graph	三角函数图像	sān jiǎo hán shù tú xiàng	Graph of $y = \sin x$, $y = \cos x$, or $y = \tan x$ (Ext.)
Period	周期	zhōu qī	The interval after which a trig function repeats (Ext.)
Amplitude	振幅	zhèn fú	Maximum displacement from the centre line (Ext.)
Asymptote	渐近线	jiàn jìn xiàn	A line a graph approaches but never touches (Ext.)
Trigonometric equation	三角方程	sān jiǎo fāng chéng	An equation involving sin, cos, or tan (Ext.)

6.5–6.6 Non-Right Triangles & 3D Problems

E6.5–E6.6 非直角三角形与三维问题

III Non-Right-Angled Triangles | 非直角三角形

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Sine rule	正弦定理	zhèng xián dìng lǐ	$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ (Ext.)
Cosine rule	余弦定理	yú xián dìng lǐ	$a^2 = b^2 + c^2 - 2bc \cos A$ (Ext.)
Included angle	夹角	jiā jiǎo	The angle between two known sides (Ext.)
Area formula	面积公式	miàn jī gōng shì	$\text{Area} = \frac{1}{2}ab \sin C$ (Ext.)
Ambiguous case	二解情况	èr jiě qíng kuàng	Sine rule may give two possible triangles (Ext.)
Obtuse angle	钝角	dùn jiǎo	An angle between 90° and 180° (Ext.)

III 3D Trigonometry | 三维三角学

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
3D problem	三维问题	sān wéi wèn tí	Using Pythagoras or trig in three dimensions (Ext.)
Angle between line and plane	线面角	xiàn miàn jiǎo	Angle from a line down to the plane it meets (Ext.)
Plane	平面	píng miàn	A flat 2D surface extending infinitely (Ext.)
Diagonal	对角线	duì jiǎo xiàn	A line joining non-adjacent vertices of a shape
Space diagonal	体对角线	tǐ duì jiǎo xiàn	A diagonal through the interior of a 3D solid (Ext.)

Flashcards — Front (Terms)

闪 卡 正 面 — 术 语

Pythagoras'
Theorem

勾股定理

Hypotenuse

斜 边

Sine (sin)

正 弦

Cosine (cos)

余 弦

Tangent (tan)

正 切

**Right-angled
Triangle**

直 角 三 角 形

Cut along dashed lines. Print this and next back-to-back. 沿虚线剪开。本页与下一页双面打印。

Flashcards — Back (Definitions)

闪卡背面—定义

Hypotenuse

斜边

Longest side; opposite the right angle
最长边；直角的对边

Pythagoras' Theorem

勾股定理

$$a^2 + b^2 = c^2$$

直角三角形三边关系

Cosine (cos)

余弦

$\cos \theta = \text{adjacent/hypotenuse}$
 $\cos \theta = \text{邻边/斜边}$

Sine (sin)

正弦

$\sin \theta = \text{opposite/hypotenuse}$
 $\sin \theta = \text{对边/斜边}$

Right-angled Triangle

直角三角形

A triangle with one 90° angle
有一个 90° 角的三角形

Tangent (tan)

正切

$\tan \theta = \text{opposite/adjacent}$
 $\tan \theta = \text{对边/邻边}$

🖨️ Print pages 6–7 back-to-back, then cut along dashed lines. 第 6–7 页双面打印，沿虚线剪裁。

Flashcards — Front (More Terms)

闪卡正面 — 更多术语

Opposite (side)

对边

Adjacent (side)

邻边

Angle of Elevation

仰角

Angle of Depression

俯角

Inverse Trig Function

反三角函数

SOHCAHTOA

三角比口诀

Cut along dashed lines. Print this and next back-to-back. 沿虚线剪开。本页与下一页双面打印。

Flashcards — Back (Definitions)

闪卡背面—定义

Adjacent (side)

邻边

Side next to the angle (not hypotenuse)

紧靠该角的边 (非斜边)

Opposite (side)

对边

Side across from a given angle

给定角的对面那条边

Angle of Depression

俯角

Angle downwards from the horizontal

从水平线向下看的角度

Angle of Elevation

仰角

Angle upwards from the horizontal

从水平线向上看的角度

SOHCAHTOA

三角比口诀

$\sin = O/H$, $\cos = A/H$, $\tan = O/A$

正弦 = 对/斜, 余弦 = 邻/斜, 正切 = 对/邻

Inverse Trig Function

反三角函数

\sin^{-1} , \cos^{-1} , \tan^{-1} ; finds angle

\sin^{-1} , \cos^{-1} , \tan^{-1} ; 求角度

🖨️ Print pages 8–9 back-to-back, then cut along dashed lines. 第 8–9 页双面打印, 沿虚线剪裁。

Flashcards — Front (Even More Terms)

闪卡正面—更多术语

Sine Rule

正弦定理

Cosine Rule

余弦定理

Amplitude

振幅

Period

周期

Obtuse Angle

钝角

Included Angle

夹角

Cut along dashed lines. Print this and next back-to-back. 沿虚线剪开。本页与下一页双面打印。

Flashcards — Back (Definitions)

闪卡背面—定义

Cosine Rule

余弦定理

$$a^2 = b^2 + c^2 - 2bc \cos A$$

Sine Rule

正弦定理

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

Period

周期

Interval after which a function repeats

函数重复一次的区间长度

Amplitude

振幅

Max displacement from centre line

离中心线的最大距离

Included Angle

夹角

The angle between two known sides

两条已知边之间的角

Obtuse Angle

钝角

An angle between 90° and 180°

大于 90° 小于 180° 的角

🖨 Print pages 10–11 back-to-back, then cut along dashed lines. 第 10–11 页双面打印，沿虚线剪裁。