



Edexcel IGCSE 4MA1

Number Vocabulary

数 (Number) 词汇卡

Topic 1 | Foundation & Higher

FREE | **Edexcel 4MA1** | **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  Foundation & Higher

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

📖 **Vocabulary Tables** (p. 3–6) — 50+ bilingual terms with pinyin & definitions

✂️ **Flashcards** (p. 7–12) — 3 sets of printable cards, print front/back pages back-to-back

🔍 **Higher labels** — Look for (H) to spot Higher-only content



Differentiation Tips / 分层教学建议

★ **Foundation students** — Focus on terms without the (H) marker

🔍 **Higher students** — Learn all terms including (H) items

👥 **Bilingual learners** — Use the Chinese and Pinyin columns for support

🖨️ **Printing tip** — Print flashcard pages double-sided for front/back cards

♥ **Enjoying this resource?**

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Also available for Edexcel 4MA1: **Equations, Formulae & Identities, Sequences, Functions & Graphs, Geometry & Trigonometry, Vectors & Transformation Geometry, Statistics & Probability** Vocabulary Cards

1.1 Integers & 1.5 Set Language and Notation

1.1 整数 1.5 集合语言与符号

≡ Number Types | 数的类型

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|--------------------------|------------|---------------|--------------------------------------------------------------------------|
| Natural number | 自然数 | zì rán shù | Positive counting numbers: 1, 2, 3, ... |
| Integer | 整数 | zhěng shù | Whole numbers including negatives: ..., -2, -1, 0, 1, 2, ... |
| Prime number | 质数/素数 | zhì shù | A number with exactly two factors: 2, 3, 5, 7, 11, ... |
| Square number | 平方数 | píng fāng shù | n^2 : 1, 4, 9, 16, 25, ... |
| Cube number | 立方数 | lì fāng shù | n^3 : 1, 8, 27, 64, 125, ... |
| Rational number | 有理数 | yǒu lǐ shù | Can be written as $\frac{a}{b}$ where $a, b \in \mathbb{Z}$, $b \neq 0$ |
| Irrational number | 无理数 | wú lǐ shù | Cannot be written as a fraction, e.g. $\sqrt{2}$, π |
| Reciprocal | 倒数 | dào shù | The reciprocal of n is $\frac{1}{n}$; $n \times \frac{1}{n} = 1$ |

≡ Sets | 集合

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|----------------------|------------|-----------|-----------------------------------------------------------------|
| Set | 集合 | jí hé | A collection of objects (elements) |
| Element | 元素 | yuán sù | A member of a set; $a \in A$ means a is an element of set A |
| Universal set | 全集 | quán jí | The set of all elements under consideration, \mathcal{U} |
| Empty set | 空集 | kōng jí | A set with no elements, written as \emptyset or $\{\}$ |
| Intersection | 交集 | jiāo jí | $A \cap B$ — elements in both A and B |
| Union | 并集 | bìng jí | $A \cup B$ — elements in A or B (or both) |
| Complement | 补集 | bǔ jí | A' — elements NOT in A |
| Subset | 子集 | zǐ jí | $A \subseteq B$ — all elements of A are in B (H) |
| Venn diagram | 韦恩图 | wéi ēn tú | Overlapping circles showing relationships between sets |

1.4 Powers & Roots, 1.2–1.3 Fractions & Decimals

1.4 幂与根、1.2–1.3 分数与小数

≡ Powers & Roots | 幂与根

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|----------------------|------------|---------------|-----------------------------------------------------------|
| Square root | 平方根 | píng fāng gēn | \sqrt{n} : the number that, squared, gives n |
| Cube root | 立方根 | lì fāng gēn | $\sqrt[3]{n}$: the number that, cubed, gives n |
| Index / Power | 指数/幂 | zhǐ shù | In a^n , n is the index; fractional indices (H) |
| Surd | 根式 | gēn shì | An irrational root, e.g. $\sqrt{3}$, $2\sqrt{5}$ (H) |

≡ Fractions, Decimals & Percentages | 分数、小数与百分数

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|--------------------------|------------|-------------------|---------------------------------------------------------|
| Numerator | 分子 | fēn zǐ | The top number in a fraction |
| Denominator | 分母 | fēn mǔ | The bottom number in a fraction |
| Proper fraction | 真分数 | zhēn fēn shù | Numerator < Denominator, e.g. $\frac{3}{5}$ |
| Improper fraction | 假分数 | jiǎ fēn shù | Numerator \geq Denominator, e.g. $\frac{7}{4}$ |
| Mixed number | 带分数 | dài fēn shù | Integer + proper fraction, e.g. $1\frac{3}{4}$ |
| Recurring decimal | 循环小数 | xún huán xiǎo shù | Repeats, e.g. $0.\dot{3}$; convert to fraction (H) |
| Percentage | 百分数 | bǎi fēn shù | A number out of 100, written with % symbol |

≡ Operations | 四则运算

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|-------------------------------------|------------|------------------|------------------------------------------------------------------|
| Sum | 和 | hé | The result of addition |
| Difference | 差 | chā | The result of subtraction |
| Product | 积 | jī | The result of multiplication |
| Quotient | 商 | shāng | The result of division |
| BIDMAS / Order of operations | 运算顺序 | yùn suàn shùn xù | Brackets, Indices, Division/Multiplication, Addition/Subtraction |

1.9 Standard Form, 1.8 Degree of Accuracy & 1.6–1.7 Percentages & Ratio

1.9 标准式、1.8 精确度与 1.6–1.7 百分比与比

Indices & Standard Form | 指数与标准式

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|----------------------|------------|---------------|--------------------------------------------------------------|
| Standard form | 标准式 | biāo zhǔn shì | $A \times 10^n$ where $1 \leq A < 10$ and $n \in \mathbb{Z}$ |
| Base | 底数 | dǐ shù | In a^n , the a is the base |
| Exponent | 指数 | zhǐ shù | Another word for index/power |

Estimation & Accuracy | 估算与精确度

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|----------------------------------|------------|-----------------|-------------------------------------------------------------------|
| Decimal place (d.p.) | 小数位 | xiǎo shù wèi | Number of digits after the decimal point |
| Significant figure (s.f.) | 有效数字 | yǒu xiào shù zì | Digits that carry meaning, starting from the first non-zero digit |
| Estimation | 估算 | gū suàn | Approximate calculation by rounding values first |
| Upper bound | 上界 | shàng jiè | Greatest value before rounding; calc. bounds (H) |
| Lower bound | 下界 | xià jiè | Smallest value before rounding; calc. bounds (H) |

Ratio, Proportion & Percentage | 比、比例与百分比

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|---------------------------|------------|---------------------|------------------------------------------------------|
| Ratio | 比 | bǐ | Comparison of two quantities, e.g. 3 : 5 |
| Proportion | 比例 | bǐ lì | Equality of two ratios; a part compared to the whole |
| Simple interest | 单利 | dān lì | Interest calculated on original amount only |
| Compound interest | 复利 | fù lì | Interest calculated on amount + accumulated interest |
| Reverse percentage | 逆向百分比 | nì xiàng bǎi fēn bǐ | Finding the original value before a % change |

1.1 Integers (Ordering) & 1.10 Applying Number

1.1 整数 (排序) 1.10 数的应用

≡ Ordering & Comparison | 排序与比较

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|---------------------|------------|-----------|-----------------------------------------------------|
| Ordering | 排序 | pái xù | Arranging numbers using $<$, $>$, \leq , \geq |
| Greater than | 大于 | dà yú | $a > b$ means a is larger than b |
| Less than | 小于 | xiǎo yú | $a < b$ means a is smaller than b |

≡ Rates & Units | 比率与单位

| English 英文 | Chinese 中文 | Pinyin 拼音 | Definition 定义 |
|---------------------------|------------|--------------------|-------------------------------------------------------|
| Rate | 比率 | bǐ lǜ | A ratio comparing two quantities with different units |
| Speed | 速度 | sù dù | Distance \div time, e.g. km/h |
| Density | 密度 | mì dù | Mass \div volume, e.g. g/cm ³ |
| Conversion factor | 换算因子 | huàn suàn yīn zǐ | Number used to convert between units |
| Exponential growth | 指数增长 | zhǐ shù zēng zhǎng | Growth by a constant multiplier each period (H) |

Flashcards — Front (Terms)

闪卡正面 — 术语

Integer

整数

Prime

质数

Rational

有理数

Irrational

无理数

Reciprocal

倒数

Square Root

平方根

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Flashcards — Back (Definitions)

闪卡背面一定义

Prime

质数

A number with exactly two factors: 2, 3, 5, 7, 11...

只有两个因数的数: 2, 3, 5, 7, 11...

Integer

整数

Whole numbers including negatives: ..., -2, -1, 0, 1, 2...

包含负数的整数: ..., -2, -1, 0, 1, 2...

Irrational

无理数

Cannot be written as a fraction, e.g. $\sqrt{2}$, π

不能写成分数, 如 $\sqrt{2}$, π

Rational

有理数

Can be written as $\frac{a}{b}$ where $b \neq 0$

能写成 $\frac{a}{b}$ 的数 ($b \neq 0$)

Square Root

平方根

\sqrt{n} : the number that, squared, gives n

\sqrt{n} : 平方后等于 n 的数

Reciprocal

倒数

The reciprocal of n is $\frac{1}{n}$

n 的倒数是 $\frac{1}{n}$

Print pages 7–8 back-to-back, then cut along dashed lines. 第 7–8 页双面打印, 沿虚线剪裁。

Flashcards — Front (More Terms)

闪卡正面—更多术语

Numerator

分子

Denominator

分母

Upper Bound

上界

Lower Bound

下界

Standard Form

标准式

**Compound
Interest**

复利

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)

闪卡背面一定义

Denominator

分母

The bottom number in a fraction
分数中下面的数

Numerator

分子

The top number in a fraction
分数中上面的数

Lower Bound

下界

The smallest possible
value before rounding (H)
四舍五入前最小可能值 (H)

Upper Bound

上界

The greatest possible
value before rounding (H)
四舍五入前最大可能值 (H)

Compound Interest

复利

Interest on amount +
accumulated interest
按本金加累积利息计算的利息

Standard Form

标准式

$A \times 10^n$ where $1 \leq A < 10$
 $A \times 10^n$, 其中 $1 \leq A < 10$

Print pages 9–10 back-to-back, then cut along dashed lines. 第 9–10 页双面打印, 沿虚线剪裁。

Flashcards — Front (Even More Terms)

闪卡正面 — 更多术语

Square Number

平方数

Cube Root

立方根

Percentage

百分数

Ratio

比

Significant Figure

有效数字

Estimation

估算

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)

闪卡背面一定义

Cube Root

立方根

$\sqrt[3]{n}$: the number that, cubed, gives n

$\sqrt[3]{n}$: 立方后等于 n 的数

Square Number

平方数

n^2 : 1, 4, 9, 16, 25, ...

n^2 : 1, 4, 9, 16, 25, ...

Ratio

比

Comparison of two quantities, e.g. 3 : 5

两个量的比较, 如 3 : 5

Percentage

百分数

A number out of 100,
written with % symbol

以 100 为基准的数, 用% 表示

Estimation

估算

Approximate calculation
by rounding values first

先四舍五入再进行近似计算

Significant Figure

有效数字

Digits that carry meaning, start-
ing from the first non-zero digit

从第一个非零数字开始的有意义数字

🖨️ Print pages 11–12 back-to-back, then cut along dashed lines. 第 11–12 页双面打印, 沿虚线剪裁。