



Edexcel IGCSE 4MA1

# Statistics & Probability Vocabulary

## 统计与概率 (Statistics) 词汇卡

Topic 6 | 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. 3–5) — 40+ bilingual terms with pinyin & definitions
- ☒ **Flashcards** (p. 6–11) — 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
- 人群 **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 for Edexcel 4MA1: **Numbers & Number System, Equations, Formulae & Identities, Sequences, Functions & Graphs, Geometry & Trigonometry, Vectors & Transformation Geometry Vocabulary Cards**

## 6.2 Statistical Measures & 6.1 Graphical Representation of Data

6.2 统计测量 6.1 数据的图形表示

### ☰ Data Classification | 数据分类

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
<b>Data</b>	数据	shù jù	Information collected for analysis
<b>Discrete data</b>	离散数据	lí sǎn shù jù	Data that can only take specific values, e.g. shoe size
<b>Continuous data</b>	连续数据	lián xù shù jù	Data that can take any value in a range, e.g. height
<b>Frequency</b>	频数	pín shù	The number of times a value occurs
<b>Tally</b>	计数符号	jì shù fú hào	A mark used to record data; groups of 5
<b>Two-way table</b>	双向表	shuāng xiàng biǎo	A table showing two categories of data
<b>Class interval</b>	组距	zǔ jù	A range of values used to group data, e.g. $10 \leq x < 20$

### ☰ Averages & Measures of Spread | 平均数与离散度

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
<b>Mean</b>	平均数	píng jūn shù	Sum of values $\div$ number of values
<b>Median</b>	中位数	zhōng wèi shù	The middle value when data is ordered
<b>Mode</b>	众数	zhòng shù	The most frequently occurring value
<b>Range</b>	全距	quán jù	Largest value – smallest value
<b>Quartile</b>	四分位数	sì fēn wèi shù	Values dividing ordered data into four equal parts ( $H$ )
<b>Interquartile range</b>	四分位距	sì fēn wèi jù	$Q_3 - Q_1$ : spread of the middle 50% ( $H$ )
<b>Modal class</b>	众数组	zhòng shù zǔ	The class interval with the highest frequency
<b>Estimated mean</b>	估计平均数	gū jì píng jūn shù	Mean calculated using midpoints of class intervals

## 6.1 Graphical Representation of Data & 6.2 Statistical Measures (Advanced)

6.1 数据的图形表示 6.2 统计测量（高级）

### III Charts & Diagrams | 图表

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
<b>Bar chart</b>	条形图	tiáo xíng tú	Bars showing frequency; equal width, gaps between bars
<b>Pie chart</b>	饼图	bǐng tú	A circle divided into sectors showing proportions
<b>Pictogram</b>	象形图	xiàng xíng tú	A chart using symbols to represent data
<b>Stem-and-leaf diagram</b>	茎叶图	jīng yè tú	Data split into stem (tens) and leaf (units)
<b>Scatter diagram</b>	散点图	sǎn diǎn tú	Points plotted to show relationship between two variables
<b>Correlation</b>	相关性	xiāng guān xìng	The relationship between two variables (positive/negative/zero)
<b>Line of best fit</b>	最佳拟合线	zuì jiā nǐ hé xiàn	A straight line that best represents scatter data

### III Advanced Statistics | 高级统计

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
<b>Cumulative frequency</b>	累积频率	lěi jī pín lü	A running total of frequencies ( $H$ )
<b>Cumulative frequency diagram</b>	累积频率图	lěi jī pín lü tú	An S-shaped curve plotting cumulative frequency ( $H$ )
<b>Percentile</b>	百分位数	bǎi fēn wèi shù	A value below which a percentage of data falls ( $H$ )
<b>Histogram</b>	直方图	zhí fāng tú	Bars with no gaps; area represents frequency ( $H$ )
<b>Frequency density</b>	频率密度	pín lü mì dù	Frequency $\div$ class width; the height in a histogram ( $H$ )
<b>Upper / Lower bound</b>	上界/下界	shàng jiè / xià jiè	The limits of a rounded value
<b>Outlier</b>	离群值	lí qún zhí	A data point far from the rest of the data

## 6.3 Probability

6.3 概 率

### III Basic Probability | 基础概率

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Probability	概率	gài lǜ	The chance of an event occurring, between 0 and 1
Event	事件	shì jiàn	A specific outcome or set of outcomes
Outcome	结果	jié guǒ	A possible result of an experiment
Sample space	样本空间	yàng běn kōng jiān	The set of all possible outcomes
Relative frequency	相对频率	xiāng duì pín lǜ	Frequency $\div$ total trials; an estimate of probability
Expected frequency	期望频数	qī wàng pín shù	Probability $\times$ number of trials
Fair / Biased	公平/有偏	gōng píng / yǒu piān	Fair: all outcomes equally likely; biased: not equally likely

### III Combined & Conditional Probability | 复合与条件概率

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Independent events	独立事件	dú lì shì jiàn	Events where one does not affect the other
Dependent events	相依事件	xiāng yī shì jiàn	Events where one affects the probability of the other
Tree diagram	树形图	shù xíng tú	A diagram showing all outcomes of sequential events
Venn diagram	韦恩图	wéi ēn tú	Overlapping circles showing relationships between sets
With replacement	有放回	yǒu fàng huí	Item returned before next selection; probabilities unchanged
Without replacement	无放回	wú fàng huí	Item not returned; probabilities change ( $H$ )
Conditional probability	条件概率	tiáo jiàn gài lǜ	Probability of $A$ given that $B$ has occurred ( $H$ )
Mutually exclusive	互斥事件	hù chì shì jiàn	Events that cannot happen at the same time

## Flashcards — Front (Terms)

闪 卡 正 面 — 术 语

**Mean**

平均数

**Probability**

概 率

**Median**

中位数

**Bar Chart**

条形图

**Correlation**

相 关 性

**Range**

全 距

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## Flashcards — Back (Definitions)

闪卡背面—定义

### Probability

概率

The chance of an event occurring, between 0 and 1  
事件发生的可能性，介于 0 和 1 之间

### Mean

平均数

Sum of values  $\div$  number of values  
所有数值之和  $\div$  数值个数

### Bar Chart

条形图

Bars showing frequency; equal width, gaps between bars  
用等宽条形表示频数，条形之间有间隔

### Median

中位数

The middle value when data is ordered  
数据排序后的中间值

### Range

全距

Largest value – smallest value  
最大值 – 最小值

### Correlation

相关性

The relationship between two variables  
两个变量之间的关系

🖨️ 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

**Mode**

众数

**Pie Chart**

饼图

**Tree Diagram**

树形图

**Histogram**

直方图

**Scatter Diagram**

散点图

**Frequency**

频数

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

### Pie Chart

饼图

A circle divided into sec-

tors showing proportions

用扇形表示比例的圆形图

### Mode

众数

The most frequently occurring value

出现次数最多的数值

### Histogram

直方图

Bars with no gaps; area

represents frequency (H)

无间隔的条形； 面积表示频数 (H)

### Tree Diagram

树形图

A diagram showing all out-

comes of sequential events

展示连续事件所有结果的图

### Frequency

频数

The number of times a value occurs

一个数值出现的次数

### Scatter Diagram

散点图

Points plotted to show rela-

tionship between two variables

通过描点展示两个变量之间的关系

🖨️ 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

**Cumulative Freq.**

累积频率

**Interquartile Range**

四分位距

**Sample Space**

样本空间

**Independent Events**

独立事件

**Frequency Density**

频率密度

**Discrete Data**

离散数据

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

### Interquartile Range

四分位距

$Q_3 - Q_1$ : spread of the middle 50% (H)  
 $Q_3 - Q_1$ : 中间 50% 数据的分布范围 (H)

### Cumulative Freq.

累积频率

A running total of frequencies (H)  
频率的逐步累加总和 (H)

### Independent Events

独立事件

Events where one does  
not affect the other  
一个事件不影响另一个事件

### Sample Space

样本空间

The set of all possible outcomes  
所有可能结果的集合

### Discrete Data

离散数据

Data that can only take spe-  
cific values, e.g. shoe size  
只能取特定值的数据, 如鞋码

### Frequency Density

频率密度

Frequency  $\div$  class width;  
height in a histogram (H)  
频率  $\div$  组距; 直方图的纵轴高度 (H)

🖨 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。