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

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

👥 **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: **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
Data	数据	shù jù	Information collected for analysis
Discrete data	离散数据	lí sàn shù jù	Data that can only take specific values, e.g. shoe size
Continuous data	连续数据	lián xù shù jù	Data that can take any value in a range, e.g. height
Frequency	频数	pín shù	The number of times a value occurs
Tally	计数符号	jì shù fú hào	A mark used to record data; groups of 5
Two-way table	双向表	shuāng xiàng biǎo	A table showing two categories of data
Class interval	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
Mean	平均数	píng jūn shù	Sum of values ÷ number of values
Median	中位数	zhōng wèi shù	The middle value when data is ordered
Mode	众数	zhòng shù	The most frequently occurring value
Range	全距	quán jù	Largest value − smallest value
Quartile	四分位数	sì fēn wèi shù	Values dividing ordered data into four equal parts *(H)*
Interquartile range	四分位距	sì fēn wèi jù	$Q_3 - Q_1$: spread of the middle 50% *(H)*
Modal class	众数组	zhòng shù zǔ	The class interval with the highest frequency
Estimated mean	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）

☰ Charts & Diagrams | 图表

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

☰ Advanced Statistics | 高级统计

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

6.3 Probability
6.3 概 率

☰ Basic Probability | 基础概率

English 英文	Chinese 中文	Pinyin 拼音	Definition 定义
Probability	概率	gài lü	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 lü	Frequency ÷ total trials; an estimate of probability
Expected frequency	期望频数	qī wàng pín shù	Probability × number of trials
Fair / Biased	公平/有偏	gōng píng / yǒu piān	Fair: all outcomes equally likely; biased: not equally likely

☰ 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 lü	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

Mean
平 均 数

Probability
概 率

Median
中 位 数

Bar Chart
条 形 图

Correlation
相 关 性

Range
全 距

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

Probability　　　概率

The chance of an event oc-
curring, 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 ÷ number of values
所有数值之和 ÷ 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。

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 sectors 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 outcomes 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 relationship 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。

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。

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 ÷ class width;
height in a histogram (H)
频率 ÷ 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。