

# IGCSE Mathematics

Glossary · 词汇表 · every term in the course, A–Z

| English                                                                                        | 中文    | Pinyin                |
|------------------------------------------------------------------------------------------------|-------|-----------------------|
|  acceleration | 加速度   | jiā sù dù             |
| $\angle$ acute angle                                                                           | 锐角    | ruì jiǎo              |
| $\rightarrow$ adjacent                                                                         | 邻边    | lín biān              |
| ( $\times$ ) algebra                                                                           | 代数    | dài shù               |
| $\div$ algebraic fraction                                                                      | 分式    | fēn shì               |
| $\nleftrightarrow$ alternate angles                                                            | 内错角   | nèi cuò jiǎo          |
| $\triangle$ alternate segment theorem                                                          | 弦切角定理 | xián qiē jiǎo dìng lǐ |
| ( $?$ ) ambiguous case                                                                         | 两解情况  | liǎng jiě qíng kuàng  |
| $\searrow$ angle of depression                                                                 | 俯角    | fǔ jiǎo               |
| $\nearrow$ angle of elevation                                                                  | 仰角    | yǎng jiǎo             |
|  arc        | 弧     | hú                    |
|  arc length | 弧长    | hú zhǎng              |
| $\square$ area                                                                                 | 面积    | miàn jī               |
| — asymptote                                                                                    | 渐近线   | jiàn jìn xiàn         |
| ( $\curvearrowright$ ) average speed                                                           | 平均速度  | píng jūn sù dù        |
| $+$ axes                                                                                       | 坐标轴   | zuò biāo zhóu         |
| $+$ axis                                                                                       | 坐标轴   | zuò biāo zhóu         |
| — axis of symmetry                                                                             | 对称轴   | duì chèn zhóu         |
|  bar chart  | 条形图   | tiáo xíng tú          |
| $\times_2$ base                                                                                | 底数    | dǐ shù                |
| ( $\odot$ ) bearing                                                                            | 方位角   | fāng wèi jiǎo         |

| English                                                                                                     | 中文   | Pinyin             |
|-------------------------------------------------------------------------------------------------------------|------|--------------------|
|  bias                      | 偏倚   | piān yǐ            |
|  brackets                  | 括号   | kuò hào            |
|  capacity                  | 容量   | róng liàng         |
| • centre                                                                                                    | 圆心   | yuán xīn           |
|  change the subject        | 公式变形 | gōng shì biàn xíng |
| — chord                                                                                                     | 弦    | xián               |
|  circle                    | 圆    | yuán               |
|  circumference             | 圆周   | yuán zhōu          |
|  class width               | 组距   | zǔ jù              |
|  clockwise                 | 顺时针  | shùn shí zhēn      |
|  co-interior angles        | 同旁内角 | tóng páng nèi jiǎo |
| × coefficient                                                                                               | 系数   | xì shù             |
| — collinear                                                                                                 | 共线   | gòng xiàn          |
|  column vector           | 列向量  | liè xiàng liàng    |
|  combined events         | 组合事件 | zǔ hé shì jiàn     |
|  common factor           | 公因数  | gōng yīn shù       |
|  common multiple         | 公倍数  | gōng bèi shù       |
|  compasses               | 圆规   | yuán guī           |
|  complement              | 补集   | bǔ jí              |
|  completing the square   | 配方法  | pèi fāng fǎ        |
|  composite function      | 复合函数 | fù hé hán shù      |
|  compound interest       | 复利   | fù lì              |
|  compound shape          | 组合图形 | zǔ hé tú xíng      |
|  conditional probability | 条件概率 | tiáo jiàn gài lǜ   |

| English                                                                                                  | 中文     | Pinyin                    |
|----------------------------------------------------------------------------------------------------------|--------|---------------------------|
|  cone                   | 圆锥     | yuán zhuī                 |
| = congruent                                                                                              | 全等     | quán děng                 |
|  constant               | 常数     | cháng shù                 |
|  construct              | 作图     | zuò tú                    |
|  conversion graph       | 换算图    | huàn suàn tú              |
|  coordinates            | 坐标     | zuò biāo                  |
|  coplanar               | 共面     | gòng miàn                 |
|  correlation            | 相关性    | xiāng guān xìng           |
|  corresponding angles   | 同位角    | tóng wèi jiǎo             |
|  cosine                 | 余弦     | yú xián                   |
|  cosine rule            | 余弦定理   | yú xián dìng lǐ           |
|  cross-section          | 横截面    | héng jié miàn             |
|  cube                  | 立方体    | lì fāng tǐ                |
|  cube number          | 立方数    | lì fāng shù               |
|  cube root            | 立方根    | lì fāng gēn               |
|  cubic                | 三次     | sān cì                    |
|  cuboid               | 长方体    | cháng fāng tǐ             |
|  cumulative frequency | 累积频数   | lěi jī pín shù            |
|  curved surface area  | 侧面积    | cè miàn jī                |
|  cyclic quadrilateral | 圆内接四边形 | yuán nèi jiē sì biān xíng |
|  cylinder             | 圆柱     | yuán zhù                  |
|  data                 | 数据     | shù jù                    |
|  decagon              | 十边形    | shí biān xíng             |
|  deceleration         | 减速度    | jiǎn sù dù                |

| English                                                                                                     | 中文   | Pinyin              |
|-------------------------------------------------------------------------------------------------------------|------|---------------------|
|  decimal                   | 小数   | xiǎo shù            |
|  decimal place             | 小数位  | xiǎo shù wèi        |
|  denominator               | 分母   | fēn mǔ              |
|  density                   | 密度   | mì dù               |
|  depreciation              | 折旧   | zhé jiù             |
|  derivative                | 导数   | dǎo shù             |
|  diameter                  | 直径   | zhí jìng            |
|  difference of two squares | 平方差  | píng fāng chà       |
|  differentiation           | 微分   | wēi fēn             |
|  direct proportion         | 正比例  | zhèng bǐ lì         |
|  directed line segment     | 有向线段 | yǒu xiàng xiàn duàn |
|  distance                  | 距离   | jù lí               |
|  domain                   | 定义域  | dìng yì yù          |
|  edge                    | 棱    | léng                |
|  element                 | 元素   | yuán sù             |
|  empty set               | 空集   | kōng jí             |
|  enlargement             | 放大   | fàng dà             |
|  equation                | 方程   | fāng chéng          |
|  equilateral             | 等边   | děng biān           |
|  estimate                | 估算   | gū suàn             |
|  event                   | 事件   | shì jiàn            |
|  exchange rate           | 汇率   | huì lǜ              |
|  expand                  | 展开   | zhǎn kāi            |
|  expected frequency      | 期望频数 | qī wàng pín shù     |

| English                                                                                                    | 中文    | Pinyin              |
|------------------------------------------------------------------------------------------------------------|-------|---------------------|
|  exponential decay        | 指数衰减  | zhǐ shù shuāi jiǎn  |
|  exponential growth       | 指数增长  | zhǐ shù zēng zhǎng  |
|  exponential sequence     | 指数数列  | zhǐ shù shù liè     |
| $()$ expression                                                                                            | 表达式   | biǎo dá shì         |
| $\gg$ exterior angle                                                                                       | 外角    | wài jiǎo            |
|  face                     | 面     | miàn                |
| $\times$ factor                                                                                            | 因数    | yīn shù             |
|  factorise                | 因式分解  | yīn shì fēn jiě     |
|  fair                     | 公平    | gōng píng           |
|  fraction                 | 分数    | fēn shù             |
| $\div$ fractional equation                                                                                 | 分式方程  | fēn shì fāng chéng  |
|  frequency                | 频数    | pín shuò            |
|  frequency density       | 频数密度  | pín shuò mì dù      |
|  frequency distribution | 频数分布  | pín shuò fēn bù     |
|  frustum                | 平截头体  | píng jié tóu tǐ     |
|  function               | 函数    | hán shù             |
|  gradient               | 斜率    | xié lǜ              |
|  grouped data           | 分组数据  | fēn zǔ shù jù       |
| $\updownarrow$ height                                                                                      | 高     | gāo                 |
|  hemisphere             | 半球    | bàn qiú             |
|  hexagon                | 六边形   | liù biān xíng       |
| $\uparrow$ highest common factor                                                                           | 最大公因数 | zuì dà gōng yīn shù |
|  histogram              | 直方图   | zhí fāng tú         |
| $\leftrightarrow$ horizontal                                                                               | 水平    | shuǐ píng           |

| English                                                                                                | 中文    | Pinyin             |
|--------------------------------------------------------------------------------------------------------|-------|--------------------|
|  hypotenuse           | 斜边    | xié biān           |
|  improper fraction    | 假分数   | jiǎ fēn shù        |
|  independent events   | 独立事件  | dú lì shì jiàn     |
|  index                | 指数    | zhǐ shù            |
| $x^2$ indices                                                                                          | 指数    | zhǐ shù            |
|  inequality           | 不等式   | bù děng shì        |
| $\pm$ integer                                                                                          | 整数    | zhěng shù          |
|  intercept            | 截距    | jié jù             |
| $\%$ interest                                                                                          | 利息    | lì xī              |
| $\succ$ interior angle                                                                                 | 内角    | nèi jiǎo           |
| [ ] interquartile range                                                                                | 四分位距  | sì fēn wèi jù      |
|  intersection         | 交集    | jiāo jí            |
| $\times$ intersection point                                                                            | 交点    | jiāo diǎn          |
|  inverse function   | 反函数   | fǎn hán shù        |
|  inverse proportion | 反比例   | fǎn bǐ lì          |
| $\pi$ irrational number                                                                                | 无理数   | wú lǐ shù          |
|  isosceles          | 等腰    | děng yāo           |
|  kite               | 鸢形    | yuān xíng          |
| $\leftrightarrow$ length                                                                               | 长度    | cháng dù           |
|  like terms         | 同类项   | tóng lèi xiàng     |
|  line of best fit   | 最佳拟合线 | zuì jiā nǐ hé xiàn |
| — line segment                                                                                         | 线段    | xiàn duàn          |
|  line symmetry      | 轴对称   | zhóu duì chèn      |
| — linear                                                                                               | 一次    | yī cì              |

| English                                                                                                  | 中文    | Pinyin                |
|----------------------------------------------------------------------------------------------------------|-------|-----------------------|
|  lower bound            | 下界    | xià jiè               |
|  lowest common multiple | 最小公倍数 | zuì xiǎo gōng bèi shù |
|  magnitude              | 大小    | dà xiǎo               |
|  major sector           | 大扇形   | dà shàn xíng          |
|  mass                   | 质量    | zhì liàng             |
|  maximum                | 最大值   | zuì dà zhí            |
| — mean                                                                                                   | 平均数   | píng jūn shù          |
| ≡ median                                                                                                 | 中位数   | zhōng wèi shù         |
|  metric                 | 公制    | gōng zhì              |
| • midpoint                                                                                               | 中点    | zhōng diǎn            |
|  minimum                | 最小值   | zuì xiǎo zhí          |
|  minor sector           | 小扇形   | xiǎo shàn xíng        |
| — mirror line                                                                                            | 对称轴   | duì chèn zhóu         |
|  mixed number         | 带分数   | dài fēn shù           |
|  modal class          | 众数组   | zhòng shù zǔ          |
|  mode                 | 众数    | zhòng shù             |
| * multiple                                                                                               | 倍数    | bèi shù               |
| × multiplier                                                                                             | 乘数    | chéng shù             |
|  mutually exclusive   | 互斥    | hù chì                |
| # natural number                                                                                         | 自然数   | zì rán shù            |
|  negative correlation | 负相关   | fù xiāng guān         |
|  net                  | 展开图   | zhǎn kāi tú           |
|  number line          | 数轴    | shù zhóu              |
|  numerator            | 分子    | fēn zǐ                |

| English                  | 中文    | Pinyin                 |
|--------------------------|-------|------------------------|
| » obtuse angle           | 钝角    | dùn jiǎo               |
| ⬡ octagon                | 八边形   | bā biān xíng           |
| ↑ opposite               | 对边    | duì biān               |
| ≡ order of operations    | 运算顺序  | yùn suàn shùn xù       |
| ⊙ origin                 | 原点    | yuán diǎn              |
| 🏆 outcome                | 结果    | jié guǒ                |
| 📐 parabola               | 抛物线   | pāo wù xiàn            |
| = parallel               | 平行    | píng xíng              |
| ▭ parallelogram          | 平行四边形 | píng xíng sì biān xíng |
| ⬠ pentagon               | 五边形   | wǔ biān xíng           |
| % percentage             | 百分比   | bǎi fēn bǐ             |
| % percentile             | 百分位数  | bǎi fēn wèi shù        |
| □ perfect square         | 完全平方  | wán quán píng fāng     |
| ⋮ perimeter              | 周长    | zhōu cháng             |
| + perpendicular          | 垂直    | chuí zhí               |
| ↗ perpendicular bisector | 垂直平分线 | chuí zhí píng fēn xiàn |
| 🖼 pictogram              | 象形图   | xiàng xíng tú          |
| 📊 pie chart              | 饼图    | bǐng tú                |
| □ plane                  | 平面    | píng miàn              |
| ⋮ plane of symmetry      | 对称面   | duì chèn miàn          |
| ⬠ polygon                | 多边形   | duō biān xíng          |
| 👥 population density     | 人口密度  | rén kǒu mì dù          |
| 📍 position vector        | 位置向量  | wèi zhì xiàng liàng    |
| ↗ positive correlation   | 正相关   | zhèng xiāng guān       |

| English                                                                                                | 中文   | Pinyin           |
|--------------------------------------------------------------------------------------------------------|------|------------------|
|  power                | 幂    | mì               |
|  pressure             | 压强   | yā qiáng         |
|  prime factor         | 质因数  | zhì yīn shù      |
|  prime number         | 质数   | zhì shù          |
|  principal            | 本金   | běn jīn          |
|  prism                | 棱柱   | léng zhù         |
|  probability          | 概率   | gài lǜ           |
|  product              | 乘积   | chéng jī         |
|  proper fraction      | 真分数  | zhēn fēn shù     |
|  proportion           | 比例   | bǐ lì            |
|  pyramid              | 棱锥   | léng zhuī        |
|  Pythagoras' theorem | 勾股定理 | gōu gǔ dìng lǐ   |
|  quadrants          | 象限   | xiàng xiàn       |
| $x^2$ quadratic                                                                                        | 二次   | èr cì            |
|  quadratic formula  | 求根公式 | qiú gēn gōng shì |
|  quadrilateral      | 四边形  | sì biān xíng     |
|  quartile           | 四分位数 | sì fēn wèi shù   |
|  radius             | 半径   | bàn jìng         |
|  random             | 随机   | suí jī           |
|  range              | 值域   | zhí yù           |
|  rate               | 比率   | bǐ lǜ            |
|  rate of change     | 变化率  | biàn huà lǜ      |
| $\div$ ratio                                                                                           | 比    | bǐ               |
| $\div$ rational expression                                                                             | 有理式  | yǒu lǐ shì       |

| English                                                                                                                 | 中文    | Pinyin                 |
|-------------------------------------------------------------------------------------------------------------------------|-------|------------------------|
| $\div$ rational number                                                                                                  | 有理数   | yǒu lǐ shù             |
| $\div$ rationalise the denominator                                                                                      | 分母有理化 | fēn mǔ yǒu lǐ huà      |
| $\frac{\square}{\square}$ reciprocal                                                                                    | 倒数    | dào shǔ                |
| $\square$ rectangle                                                                                                     | 矩形    | jǔ xíng                |
| $\curvearrowright$ recurring decimal                                                                                    | 循环小数  | xún huán xiǎo shù      |
| $\left[ \begin{smallmatrix}   \\   \end{smallmatrix} \right]$ reflection                                                | 反射    | fǎn shè                |
| $\curvearrowright$ reflex angle                                                                                         | 优角    | yōu jiǎo               |
| $\square$ region                                                                                                        | 区域    | qū yù                  |
| $\bigcirc$ regular polygon                                                                                              | 正多边形  | zhèng duō biān xíng    |
| $\%$ relative frequency                                                                                                 | 相对频率  | xiāng duì pín lǜ       |
| $\%$ remainder                                                                                                          | 余数    | yú shù                 |
| $\curvearrowleft$ reverse percentage                                                                                    | 逆百分比  | nì bǎi fēn bǐ          |
| $\diamond$ rhombus                                                                                                      | 菱形    | líng xíng              |
| $\square$ right angle                                                                                                   | 直角    | zhí jiǎo               |
| $\triangle$ right-angled triangle                                                                                       | 直角三角形 | zhí jiǎo sān jiǎo xíng |
| $\sqrt{\quad}$ roots                                                                                                    | 根     | gēn                    |
| $\curvearrowright$ rotation                                                                                             | 旋转    | xuán zhuǎn             |
| $\curvearrowright$ rotational symmetry                                                                                  | 旋转对称  | xuán zhuǎn duì chèn    |
| $\begin{smallmatrix} \square & \square & \square \\ \square & \square & \square \end{smallmatrix}$ sample space diagram | 样本空间图 | yàng běn kōng jiān tú  |
| $\#$ scalar                                                                                                             | 标量    | biāo liàng             |
| $\text{ruler}$ scale                                                                                                    | 比例尺   | bǐ lì chǐ              |
| $\text{ruler}$ scale drawing                                                                                            | 比例图   | bǐ lì tú               |
| $\text{arrow}$ scale factor                                                                                             | 比例因子  | bǐ lì yīn zi           |
| $\triangle$ scalene                                                                                                     | 不等边   | bù děng biān           |

| English                                                                                                   | 中文    | Pinyin             |
|-----------------------------------------------------------------------------------------------------------|-------|--------------------|
|  scatter diagram         | 散点图   | sàn diǎn tú        |
|  sector                  | 扇形    | shàn xíng          |
|  segment                 | 弓形    | gōng xíng          |
|  semicircle              | 半圆    | bàn yuán           |
|  sequence                | 数列    | shù liè            |
|  set                     | 集合    | jí hé              |
|  significant figure      | 有效数字  | yǒu xiào shù zì    |
|  similar                 | 相似    | xiāng sì           |
|  simple interest         | 单利    | dān lì             |
|  simplest form           | 最简形式  | zuì jiǎn xíng shì  |
|  simultaneous equations  | 联立方程  | lián lì fāng chéng |
|  sine                    | 正弦    | zhèng xián         |
|  sine rule               | 正弦定理  | zhèng xián dìng lǐ |
|  slant height            | 斜高    | xié gāo            |
|  solids                 | 几何体   | jǐ hé tǐ           |
|  sphere                | 球     | qiú                |
|  square                | 正方形   | zhèng fāng xíng    |
|  square number         | 平方数   | píng fāng shù      |
|  square root           | 平方根   | píng fāng gēn      |
|  standard form         | 科学记数法 | kē xué jì shù fǎ   |
|  stationary point      | 驻点    | zhù diǎn           |
|  statistical           | 统计    | tǒng jì            |
|  stem-and-leaf diagram | 茎叶图   | jīng yè tú         |
|  subset                | 子集    | zǐ jí              |

| English                                                                                                    | 中文   | Pinyin              |
|------------------------------------------------------------------------------------------------------------|------|---------------------|
|  substitute               | 代入   | dài rù              |
|  supplementary            | 互补   | hù bǔ               |
|  surd                     | 根式   | gēn shì             |
|  surface                  | 表面   | biǎo miàn           |
|  surface area             | 表面积  | biǎo miàn jī        |
|  symmetry                 | 对称   | duì chèn            |
|  table of values          | 数值表  | shù zhí biǎo        |
|  tally table              | 计数表  | jì shù biǎo         |
|  tangent                  | 切线   | qiè xiàn            |
|  tangent ratio            | 正切   | zhèng qiē           |
|  term                     | 项    | xiàng               |
|  term-to-term rule        | 递推规则 | dì tuī guī zé       |
|  time zone                | 时区   | shí qū              |
|  transformation         | 变换   | biàn huàn           |
|  translation            | 平移   | píng yí             |
|  trapezium              | 梯形   | tī xíng             |
|  travel graph           | 行程图  | xíng chéng tú       |
|  tree diagram           | 树状图  | shù zhuàng tú       |
|  triangle               | 三角形  | sān jiǎo xíng       |
|  trigonometric equation | 三角方程 | sān jiǎo fāng chéng |
|  turning point          | 转折点  | zhuǎn zhé diǎn      |
|  two-way table          | 双向表  | shuāng xiàng biǎo   |
|  union                  | 并集   | bìng jí             |
|  universal set          | 全集   | quán jí             |

| English                                                                                                      | 中文  | Pinyin          |
|--------------------------------------------------------------------------------------------------------------|-----|-----------------|
|  unknown                    | 未知数 | wèi zhī shù     |
|  upper bound                | 上界  | shàng jiè       |
|  variable                   | 变量  | biàn liàng      |
|  vector                     | 向量  | xiàng liàng     |
|  Venn diagram               | 维恩图 | wéi ēn tú       |
| • vertex                                                                                                     | 顶点  | dǐng diǎn       |
|  vertical                   | 竖直  | shù zhí         |
|  vertically opposite angles | 对顶角 | duì dǐng jiǎo   |
|  volume                     | 体积  | tǐ jī           |
|  with replacement           | 有放回 | yǒu fàng huí    |
|  without replacement        | 无放回 | wú fàng huí     |
| — zero correlation                                                                                           | 零相关 | líng xiāng guān |