

Glossary

High School Level

Integrated Algebra Glossary

English / Chinese Traditional

$$[f^{-1}(x)]' = \frac{1}{f'(x)}$$



Translation of Integrated Algebra terms based on the Coursework for Integrated Algebra Grades 9 to 12.

Word-for-word glossaries are used for testing accommodations for ELL/LEP students

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Integrated Algebra

| English | Chinese |
|----------------------------|----------------|
| Problem Solving | 解題 |
| algebraically | 用代數方法、在代數上 |
| concept | 概念 |
| conjecture | 推測 |
| constraint | 約束、限制 |
| equivalent | 等值的 |
| formulate | 使公式化、規劃、構想出 |
| generalization | 概括化、普遍化 |
| graphically | 圖像的 |
| multiple representations | 多重表述 |
| numerically | 數值的 |
| parameter | 參數 |
| pattern | 模式、型式、圖 |
| relative efficiency | 相對效率 |
| strategy | 策略 |
| verbally | 言辭的、文字上的 |
| Reasoning and Proof | 推論與證明 |
| appropriate | 適當的 |
| approximation | 近似 |
| argument | 論證 |
| claim | 要求、聲稱、主張 |
| conclusion | 結論 |
| conjecture | 推測 |
| counterexample | 反例、反證 |
| explain | 解釋 |
| inductive reasoning | 歸納推理 |
| logical argument | 邏輯論證 |
| mathematical conjecture | 數學推測 |
| proof | 證明 |
| refute | 駁斥、辯駁 |
| systematic approach | 系統方法 |

Integrated Algebra

| English | Chinese |
|----------------------------------|-----------------|
| validity | 有效性 |
| Venn diagram | 范氏圓形對比圖 |
| verify | 檢驗、核驗 |
| Communication | 通信、聯絡、傳送 |
| accuracy | 準確性 |
| analyze | 分析、解析 |
| argument | 論證 |
| coherent | 一致的、協調的 |
| communicate | 傳達、傳遞、通訊、交流 |
| comprehension | 理解 |
| conclusion | 結論 |
| conjecture | 推測 |
| decoding | 譯碼、解碼 |
| elicit | 引出、推導出 |
| equation | 方程式 |
| evaluate | 求...值、估計 |
| extend | 延伸、延展 |
| formula | 公式、方程式 |
| function | 函數 |
| graph | 圖、作圖 |
| interpretation | 解釋、闡明 |
| mathematical visual | 直觀數學 |
| rationale | 邏輯依據、原理的闡述 |
| standard (mathematical) notation | 標準（數學）符號 |
| strategy | 策略 |
| table | 表、表格 |
| technical writing | 技術寫作 |
| terminology | 術語、專門名詞 |
| valid | 有效 |
| Connections | 連接 |
| coherent whole | 整體一致、整體協調 |

Integrated Algebra

| English | Chinese |
|------------------------------------|----------------|
| concept | 概念 |
| connection | 連接 |
| formulate | 使公式化、規劃、構想出 |
| physical model | 實體模型 |
| procedure | 過程、程序 |
| quantitative model | 量模型 |
| representation | 表述 |
| Representation | |
| angle of elevation | 仰角 |
| array | 排列、列陣 |
| chart | 表、圖表 |
| compare | 比較 |
| diagram | 圖、圖表 |
| equation | 方程式 |
| function | 函數 |
| graph | 圖、作圖 |
| interpret | 解釋、闡明 |
| mathematical phenomena | 數學現象 |
| organize | 組織、安排 |
| physical phenomena | 物理現象 |
| profit | 利潤 |
| record | 檔案、記錄 |
| social phenomena | 社會現象 |
| symbol | 符號 |
| table | 表、表格 |
| technology | 技術 |
| translate | 轉化 |
| Number Sense and Operations | |
| absolute value | 絕對值 |
| algebraic problem | 代數問題 |
| arithmetic operation | 算術運算 |

Integrated Algebra

| English | Chinese |
|-----------------------------------|----------------|
| arrangements (permutations) | 排列 |
| associative property | 結合性 |
| closure property | 封閉性 |
| commutative property | 互換性 |
| counting techniques | 計算技巧 |
| decimal | 小數 |
| denominator | 分母 |
| discount | 折扣 |
| distributive property | 分配法 |
| exponential expression | 指數表達式 |
| expression | 表達式 |
| factorial | 階乘 |
| field | 域 |
| fraction | 分數 |
| Fundamental Principle of Counting | 計算的基本原則 |
| group | 群 |
| identity property | 恒等性 |
| inverse property | 逆反性 |
| like/unlike radical terms | 與根式項相似/不相似 |
| number theory | 數字定理 |
| numerator | 分子 |
| percent of increase/decrease | 百分率增長/下降 |
| product | 乘積 |
| properties of the Real numbers | 實數的性質 |
| proportionality/direct variation | 比例/直接變量 |
| quotient | 商 |
| radical | 根式 |
| radicand | 被開方數 |
| real numbers | 實數 |
| scientific notation | 科學記數法 |
| simplest form | 最簡式 |
| variable | 變量 |

Integrated Algebra

| English | Chinese |
|-----------------------------------|----------------|
| Algebra | 代數 |
| acute angle | 銳角 |
| adjacent side/angle | 鄰邊/鄰角 |
| algebraic equation | 代數方程式 |
| algebraic expression | 代數表達式 |
| algebraic fraction | 代數分數式 |
| analyze | 分析、解析 |
| axis of symmetry | 對稱軸 |
| binomial | 二項式 |
| coefficient | 係數 |
| common base | 共底、同底 |
| complement of a subset | 子集之補集 |
| coordinates | 坐標 |
| cosine | 餘弦 |
| dependent | 相關 |
| difference of two perfect squares | 兩個完全平方的差別 |
| element | 元、元素 |
| equation | 方程式 |
| exponent | 指數 |
| exponential growth and decay | 指數增長和減少 |
| expression | 表達式 |
| factoring | 因式分解 |
| fractional expression | 分數表達式 |
| greatest common factor (GCF) | 最大公因式（數） |
| hypotenuse | 斜邊 |
| independent variable | 自變量、獨立變量 |
| inequality | 不等式 |
| integer | 整數 |
| integral coefficient | 整數係數 |
| integral exponent | 整數指數 |
| integral root(s) | 整數根 |
| intersection of sets | 集合的相交 |

Integrated Algebra

| English | Chinese |
|-----------------------------------|----------------------|
| interval notation | 間隔符號 |
| lead coefficient | 首項係數 |
| legs of a right triangle | 直角三角形的直角邊 |
| line parallel to the x- or y-axis | 與x-軸或者y-軸平行的線 |
| linear equation in one variable | 一個變量的一次方程、一個變量的線性方程 |
| linear inequality in one variable | 一個變量的一次不等式、一個變量的線性方程 |
| literal equation | 文字方程 |
| lowest terms fraction | 分數的最簡式 |
| monomial | 單項式 |
| multiplication property of zero | 零的乘法性質 |
| opposite side/angle | 對邊/對角 |
| parabola | 拋物線 |
| parallel | 平行 |
| polynomial | 多項式 |
| product | 乘積 |
| properties of exponents | 指數的性質 |
| proportion | 比例 |
| Pythagorean Theorem | 勾股定理、畢氏定理 |
| quadratic equation | 二次方程 |
| quantitative | 量的、數量的 |
| quotient | 商 |
| ratio | 比、比率 |
| relation | 關係 |
| right angle | 直角 |
| right triangle | 直角三角形 |
| root(s) of an equation | 方程式的根 |
| roster form | 人員名簿 |
| set | 集 |
| set-builder notation | 集標記符號 |
| sine | 正弦 |
| slope | 斜率、坡度 |

Integrated Algebra

| English | Chinese |
|-------------------------------------|----------------|
| solution set | 解集 |
| subset | 子集 |
| sum | 和 |
| system of linear inequalities | 一次不等式系統 |
| systems of linear equations | 一次方程式系統 |
| tangent | 切線 |
| translate (from verbal to symbolic) | 轉化 (從文字至符號) |
| trigonometry | 三角學 |
| trinomial | 三項式 |
| undefined | 不定項 |
| union of sets | 集的合集 |
| universal set | 全集 |
| variable | 變量 |
| verbal expression | 文字表達式 |
| verbal sentence | 文字語句 |
| vertex | 頂點 (單數) |
| x-axis | x-軸 |
| y-axis | y-軸 |
| Geometry | |
| 幾何 | |
| absolute value function | 絕對值函數 |
| angle | 角 |
| area | 面積 |
| axis of symmetry of a parabola | 拋物線的對稱軸 |
| circle | 圓 |
| coefficient | 係數 |
| cylinder | 圓柱體 |
| decagon | 十邊形 |
| exponential function | 指數函數 |
| function | 函數 |
| generalize | 概括化、普遍化 |
| geometric shape | 幾何圖形 |
| graph of a relation | 關係圖 |

Integrated Algebra

| English | Chinese |
|-------------------------------|----------------|
| hexagon | 六邊形 |
| investigate | 調查 |
| nonagon | 九邊形 |
| octagon | 八邊形 |
| ordered pair | 坐標點序對 |
| parabolic function | 拋物線函數 |
| parallelogram | 平行四邊形 |
| pentagon | 五邊形 |
| perimeter | 周長 |
| polygon | 多邊形 |
| quadrilateral | 四邊形 |
| quarter-circle | 四分之一圓 |
| rational coefficient | 有理係數 |
| rectangle | 長方形 |
| rectangular solid | 長方形立體 |
| regular polygon | 正多邊形 |
| relation | 關係 |
| rhombus | 菱形 |
| roots of a parabolic function | 拋物線函數的根 |
| sector of a circle | (圓內) 扇形 |
| semi-circle | 半圓 |
| spatial reasoning | 空間論證 |
| square | 正方形 |
| surface area | 表面面積 |
| trapezoid | 梯形 |
| triangle | 三角形 |
| vertex | 頂點 (單數) |
| visualization | 可見性、形象化 |
| volume | 體積、容積 |
| Measurement | 測量 |
| appropriate unit | 適當單位 |
| conversion | 轉換 |

Integrated Algebra

| English | Chinese |
|---|----------------|
| cubic unit | 立方單位 |
| error | 錯誤 |
| linear measure | 線性測量 |
| linear unit | 線性單位 |
| magnitude | 量、數量、長度 |
| measurement system | 測量系統 |
| rate | 比、速率 |
| relative error | 相對誤差 |
| square unit | 平方單位 |
| unit | 單位 |
| Statistics and Probability | |
| appropriateness | 正確性 |
| biased | 有偏差的 |
| bivariate | 二元的、二變量的 |
| box-and-whisker plot | 百分位數圖 |
| calculated probability | 計算概率 |
| categorize | 分類 |
| causation | 因果關係、引起、導致 |
| central tendency | 集中趨勢 |
| complement | 餘角 |
| conditional probability | 條件概率 |
| correlation | 關聯、相互關係 |
| cumulative frequency distribution table | 累計頻率分佈表 |
| cumulative frequency histogram | 累計頻率直條圖 |
| data | 數據 |
| dependent events | 相依事件 |
| dependent variable | 相依變量 |
| element | 元、元素 |
| empirical probability | 經驗機率、經驗概率 |
| experimental design | 實驗設計 |
| extrapolation | 外推法、歸納、推論 |
| favorable event | 有利事件 |

Integrated Algebra

| English | Chinese |
|--|--|
| finite sample space | 有限樣本空間 |
| five statistical summary | 五個統計總結 |
| frequency distribution table | 頻率分佈表 |
| histogram | 直條圖 |
| independent events | 獨立事件 |
| independent variable | 獨立變量、自變量 |
| interpolation | 內插法、內推法 |
| line of best fit | 最佳擬合線 |
| linear transformation | 線性變換、一次變換 |
| maximum | 最大值 |
| mean | 平均數 |
| measure of central tendency | 集中趨勢測量 |
| median | 中位數、中線 |
| minimum | 最小值 |
| mode | 眾數 |
| mutually exclusive events | 互斥事件 |
| not mutually exclusive events | 非互斥事件 |
| percentile rank | 百分位數等級 |
| probability | 概率 |
| qualitative | 質的、質量的 |
| quantitative | 量的、定量的 |
| quartiles (specifically: first, second, third or lower, middle, upper) | 四分點（的）、四分值（的）、四分位數（的）（特別是：第一、第二及第三個四分位，也稱為低、中及高四分位數） |
| range | 區域、範圍、量程、排列 |
| sample space | 樣本空間 |
| scatter plot | （在直角坐標系上）定點 |
| series | 級數 |
| univariate | 單變量的、一元的 |