

Table: Comparisons of Selected Common Requirements of Algebraic Content Included at the Level of Component Sections Within Algebraic Chapters

| <u>Section Topics</u> | <u>HK</u> | <u>CHA</u> | <u>SG</u> | <u>US-A</u> | <u>US1</u> | <u>US2</u> | <u>US3</u> | <u>US4</u> |
|--|-----------|------------|-----------|-------------|------------|------------|------------|------------|
| algebraic identities - $a^2-b^2=(a+b)(a-b)$ $(a+b)^2=a^2+2ab+b^2$, $(a-b)^2=a^2-2ab+b^2$ | √ | √ | √ | √ | | | | |
| computation of algebraic fractions (+, -, x, /) | √ | √ | √ | √ | | | | |
| computation of polynomials (+, -, x, /) | √ | | √ | √ | | | | |
| evaluating expressions/formulas | √ | | | | | √ | √ | √ |
| factorization of polynomials | √ | √ | √ | √ | | | | |
| fractional equations (e.g., $2/X=4$) | | √ | √ | √ | | | | |
| function concepts, tables, etc. | | | | √ | √ | | | |
| graphing linear equations/functions | | | √ | √ | √ | √ | √ | √ |
| graphing linear inequalities (number line and/or coordinate plane) | | | | √ | | √ | √ | √ |
| graphing quadratic functions | | | √ | √ | | | | |
| graphing reciprocal functions | | | √ | | √ | | | |
| graphing systems of linear equations | √ | | | √ | | √ | √ | √ |
| inverse operations | | | | √ | √ | | | √ |
| linear inequalities | | | | √ | √ | | √ | √ |
| linear equations (constant coefficient) | | | | √ | √ | √ | √ | √ |
| solving systems of linear equations (methods of substitution, elimination) | √ | | √ | √ | | | | |
| literal linear equations | √ | | √ | | | | | |
| representing algebraic expressions | | | | | √ | √ | | √ |
| variations (direct, inverse, joint) | | | √ | √ | | | | |