

**Exhibit 23. The five topics emphasized most in Population 2 mathematics textbooks.** At Population 2, U.S. mathematics books, other than Algebra I textbooks, were much less focused than their international counterparts, or even than Population 1 mathematics textbooks. Only about half their content was accounted for by the five most emphasized topics in comparison to an international average of about 75 percent. One of the emphasized U.S. "topics" was again the catch-all 'other content' category which makes the degree of focus portrayed misleadingly high. U.S. Algebra I textbooks were highly focused with all content accounted for by the five most emphasized topics. [Data collection partitioned each textbook into "blocks" — small segments used as units of analysis. Each bar shows the cumulative percentage of textbook "blocks" for the five topics with the largest percentages of blocks devoted to them. These data are country or multi-country averages for mathematics textbooks at the upper grade of Population 2 (US grade 8). Bars are for the average over all TIMSS countries, for Japan, Germany, and for the U.S. For the U.S., Germany, and Japan, each segment's specific TIMSS framework topic (e.g., 'equations and formulas') could be determined and is shown. Internationally, the five topics varied among countries. We show them only as most emphasized (highest percentage of blocks), second most emphasized, etc.]

