

2-60. See below:

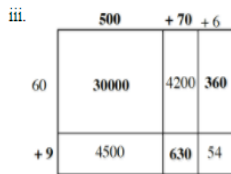
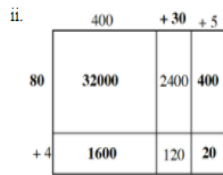
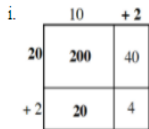
- a. Length is $300 + 20 + 5$, width is $40 + 6$
- b. $40 \cdot 300 = 12000$, $40 \cdot 20 = 800$, $40 \cdot 5 = 200$, $6 \cdot 300 = 1800$, $6 \cdot 20 = 120$, $6 \cdot 5 = 30$, the sum is 14,950.
- c. $325 \cdot 46 = 14,950 = 12000 + 800 + 200 + 1800 + 120 + 30$

2-61. See below:

- a. $25 \cdot 18 = 450$
- b. $153 \cdot 25 = 3,825$
- c. $472 \cdot 57 = 26,904$
- d. $289 \cdot 77 = 22,253$

2-62. GENERIC RECTANGLE PUZZLES

a. Missing areas and dimensions are shown in bold in diagrams below. (12)(22) = $200 + 40 + 20 + 4 = 264$, ii: $435 \cdot 84 = 32,000 + 2,400 + 1,600 + 400 + 120 + 20 = 36,540$, iii: $576 \cdot 69 = 30,000 + 4,500 + 4,200 + 630 + 360 + 54 = 39,744$



- b. No, once one dimension is chosen, the others are determined.
- c. Possible response: Divide the product by the factor that you have to find the other factor.

2-63. Explanations vary. Students may note that Martin's method only adds together two of the four smaller rectangles in the generic rectangle (the hundreds and the ones areas) and ignores both of the tens areas. Martin needed to include $20(5)$ or $30(2)$. Or, Martin needed to use a generic rectangle.