

5. If each model is constructed, how many outside doors are needed for the East Seneca development? 42  
 windows for the North Seneca development? 250  
 closet doors for all three developments? 409 ( $115+163+131$ )  
 (Hint: See resulting matrix in number 4.)
6. How many total packages (outside doors, windows, and closets) are needed for the West Seneca development? 389  
 (Hint: See resulting matrix in number 4.) (SUM OF ENTRIES IN ROW:  $(45+213+131)$ )
7. Express in words the matrix configuration for each product. (Hint: Numerically some products are possible but they may not make sense.) Write meaningless if the description of the columns in the first matrix does not match the description of the rows in the second matrix.
- a.  $A * B^T =$  LOCATION by PACKAGE
- b.  $B * A^T =$  PACKAGE by LOCATION
- c.  $A^T * C =$  — by — NO MEANING
- d.  $B^T * C =$  MODEL by COST
- e.  $C^T * A =$  — by — NO MEANING
- f.  $C^T * B =$  COST by MODEL
8. In each of the following, first use matrix notation to express the matrices and operation necessary to determine the information requested. Write the resulting matrix and then give the numerical solution.

- a. Find the cost of doors, windows and closets in model I. \$1375  
 Find the cost of doors, windows and closets in model IV. \$1480

$$(B^T * C) \text{ OR } (C^T * B)$$

	COST
I	1375
II	1792
III	2115
IV	1480

- b. Find the number of windows needed for the East Seneca development. 195  
 Find the number of closet doors needed for the North Seneca development. 143

$$(A * B^T) \text{ OR } (B * A^T)$$

	OUTSIDE	WINDOWS	CLOSETS
E	42	195	115
N	56	250	163
W	45	213	131