

Costs Microbucks Computer Co. makes two computers, the Pomegranate II and the Pomegranate Classic. The Pom II requires 2 processor chips, 16 memory chips, and 20 vacuum tubes, while the Pom Classic requires 1 processor chip, 4 memory chips, and 40 vacuum tubes. There are two companies that can supply these parts: Motorel can supply them at \$100 per processor chip, \$50 per memory chip, and \$10 per vacuum tube, while Intola can supply them at \$150 per processor chip, \$40 per memory chip, and \$15 per vacuum tube. Write down all of this data in two matrices, one showing the parts required for each model computer, and the other showing the prices for each part from each supplier. Then show how matrix multiplication allows you to compute the total cost for parts for each model when parts are bought from either supplier.

INVENTORY

	PC	MC	VT
POM II	2	16	20
POM CL	1	4	40

COST

	MOT.	INT.
PC	100	150
MC	50	40
VT	10	15

$$\begin{matrix}
 & & \text{(PARTS)} \\
 \text{INVENTORY} & \times & \text{COST} & = & \text{TOTAL} \\
 2 \times 3 & & 3 \times 2 & \rightarrow & 2 \times 2
 \end{matrix}$$

↑ ↑
 MUST
 MATCH
 (INNER
 DIM.)

	MOT.	INT.
POM II	1200	1240
POM CL	700	910