

Transition to College Math
Homework Unit 2 Lesson 2 Multiplying Matrices

Name _____ Date _____ Period _____

1. At a swim meet, four teams competed. Points were awarded for first, second, and third place finishes. The following table shows how many first, second, and third place finishes each team scored.

	First	Second	Third
Santa Fe	1	2	5
Los Alamos	4	1	1
La Cueva	1	5	2
Albuquerque Academy	5	3	3

- a. Write a matrix that contains these data.
- b. For a first place finish, a team earns 5 points. A second place finish is worth 3 points, and a third is worth 1. Write a column matrix reflecting the points awarded for first, second, and third place finishes.
- c. Use matrix multiplication to determine how many points each team received.
- d. List the teams in order of most points won and indicate how many points each team won.

2. A portrait studio offers senior portrait packages. The following table indicates the number of each size print in each package and the cost per print of each size.

Size	Package				Price per print
	A	B	C	D	
Wallet	80	60	20	0	\$18/20
4×5	10	10	8	0	\$6.00
5×7	4	4	4	4	\$9.00
8×10	2	2	2	2	\$18.00
11×14	1	1	0	0	\$32.75
16×20	1	0	0	0	\$66.00

- a. Use matrix multiplication to find the cost of the prints in each package, if purchased separately.

- b. Suppose a customer receives a 20% discount for buying the prints as a package. What would the price of each package be? Use a matrix to find out.