

MORE PRACTICE - Matrix Basics

Put the following data in a matrix form, then state the dimensions of the matrix.

1. These are the number of students enrolled in the following foreign languages.

	Spanish	French	Japanese	German
Freshman	8	9	3	0
Sophomores	15	10	10	9
Juniors	11	9	7	6
Seniors	8	9	5	4

2. The ski resort brought in these amounts of money in these categories.

	Monday	Tuesday	Wednesday	Thursday	Friday
Lift Tickets	\$252.00	\$203.00	\$195.00	\$224.00	\$350.00
Ski Rentals	\$188.00	\$155.00	\$161.00	\$155.00	\$206.00
Concessions	\$112.23	\$81.99	\$88.59	\$103.55	\$176.34

State the dimensions of the following matrices:

3. $[2 \ 3 \ 2]$

4. $\begin{bmatrix} 2 \\ 7 \\ 9 \\ 2 \end{bmatrix}$

5. $\begin{bmatrix} 2 & 4 & 1 \\ -1 & 0 & 6 \\ 9 & -2 & 8 \end{bmatrix}$

6. $\begin{bmatrix} 4 \\ 7 \end{bmatrix}$

7. $\begin{bmatrix} 1 & 3 & -1 & 9 \\ 4 & 7 & 0 & -5 \\ 1 & 6 & 4 & -2 \end{bmatrix}$

The following questions refer to matrices in #3 – #7.

8. Which of these matrices are row matrices? _____

9. Which of these matrices are column matrices? _____

10. Which of these matrices are square matrices? _____

11. For #7, what is element a_{32} ? _____

12. For #7, what is element a_{23} ? _____