

1. Find the sum of the matrices.  $\begin{bmatrix} 14 & -13 \\ 6 & -28 \end{bmatrix} + \begin{bmatrix} -21 & -10 \\ 9 & 17 \end{bmatrix}$

$$[A] \begin{bmatrix} -11 & 16 \\ -23 & -7 \end{bmatrix}$$

$$[B] \begin{bmatrix} -7 & -23 \\ 15 & -11 \end{bmatrix}$$

$$[C] \begin{bmatrix} -11 & 15 \\ -23 & -7 \end{bmatrix}$$

$$[D] \begin{bmatrix} -7 & -23 \\ 15 & -12 \end{bmatrix}$$

2. Add:  $\begin{bmatrix} 8 & 7 \\ 5 & -9 \end{bmatrix} + \begin{bmatrix} 3 & -4 \\ 6 & 2 \end{bmatrix}$

3. Find  $A + B$ .

$$A = \begin{bmatrix} -8 & -4 & -9 \\ -6 & 7 & 4 \end{bmatrix} \quad B = \begin{bmatrix} -5 & 2 & -1 \\ -4 & 0 & 9 \end{bmatrix}$$

4. If  $A = \begin{bmatrix} 6 & -4 & -1 \\ 2 & -6 & -3 \\ 0 & -2 & 9 \end{bmatrix}$  and  $B = \begin{bmatrix} -9 & 5 & 3 \\ -4 & -5 & 7 \\ 1 & -7 & 4 \end{bmatrix}$ , find  $A + B$ .

5. Mr. Gabrielli teaches French and Spanish. This chart shows the mean scores on the vocabulary sections and comprehension sections of tests for two different classes of each language.

Mean Scores

Class 2    Class 3

Vocabulary	French	32	39
	Spanish	41	35
Comprehension	French	35	42
	Spanish	39	43

Here are the matrices for the vocabulary scores  $V$  and the comprehension scores  $C$ .

$$V = \begin{bmatrix} 32 & 39 \\ 41 & 35 \end{bmatrix} \quad C = \begin{bmatrix} 35 & 42 \\ 39 & 43 \end{bmatrix}$$

Write the matrix of the combined scores,  $V + C$ .

6. Matrix  $M$  gives the quantities of T-shirts received Monday in two different colors and three different sizes. Matrix  $T$  gives the quantities of T-shirts received Tuesday of the same colors and sizes. Find  $M + T$ .

$$M = \begin{bmatrix} 123 & 452 & 565 \\ 98 & 264 & 401 \end{bmatrix} \quad T = \begin{bmatrix} 158 & 289 & 305 \\ 102 & 341 & 428 \end{bmatrix}$$

7. Find two matrices whose sum is  $\begin{bmatrix} -3 & 2 & 5 \\ 4 & -6 & 1 \end{bmatrix}$ .

Precalculus Practice N.VM.C.8: Matrices 1

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[1] B

[2]  $\begin{bmatrix} 11 & 3 \\ 11 & -7 \end{bmatrix}$

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[3]  $\begin{bmatrix} -13 & -2 & -10 \\ -10 & 7 & 13 \end{bmatrix}$

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[4]  $\begin{bmatrix} -3 & 1 & 2 \\ -2 & -11 & 4 \\ 1 & -9 & 13 \end{bmatrix}$

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[5]  $V + C = \begin{bmatrix} 67 & 81 \\ 80 & 78 \end{bmatrix}$

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[6]  $\begin{bmatrix} 281 & 741 & 870 \\ 200 & 605 & 829 \end{bmatrix}$

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[7] Answers will vary. Sample:  $A = \begin{bmatrix} 4 & 3 & 1 \\ 2 & 5 & 8 \end{bmatrix}$   $B = \begin{bmatrix} -7 & -1 & 4 \\ 2 & -11 & -7 \end{bmatrix}$