

Name _____

4-2B Lesson Master**Questions on SPUR Objectives**

See Student Edition pages 293–297 for objectives.

SKILLS Objective B

In 1 and 2, perform the indicated operations.

1. $\begin{bmatrix} 1 & 4 & -6 \\ 2 & -3 & -3 \end{bmatrix} + \begin{bmatrix} 3 & 0 & 6 \\ 4 & -3 & 8 \end{bmatrix}$ _____

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

In 3–8, let $A = \begin{bmatrix} -7 & 2 & 6 \\ 9 & 0 & -2 \\ -5 & 3 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 4 & -7 & -2 \\ 5 & 5 & 0 \\ -2 & 9 & 6 \end{bmatrix}$. Calculate

3. $3A$

4. $-4B$

5. $A + B$

6. $2A + 3B$

7. $B - A$

8. $A - 5B$

In 9–11, solve for a and b .

9. $\begin{bmatrix} 3 & a & -2 \\ -2 & 6 & 10 \end{bmatrix} + \begin{bmatrix} 3 & 8 & 0 \\ 1 & -1 & b \end{bmatrix} = \begin{bmatrix} 6 & 11 & -2 \\ -1 & 5 & 5 \end{bmatrix}$ $a =$ _____ $b =$ _____

10. $\begin{bmatrix} 6 & 8 & 0 \\ a & 7 & 13 \end{bmatrix} - \begin{bmatrix} 1 & b & 4 \\ 3 & 7 & 6 \end{bmatrix} = \begin{bmatrix} -5 & 11 & -4 \\ 0 & 0 & 7 \end{bmatrix}$ $a =$ _____ $b =$ _____

11. $4 \begin{bmatrix} a & 7 \\ 5 & -4 \end{bmatrix} - 3 \begin{bmatrix} 4 & b \\ 2 & 0 \end{bmatrix} = \begin{bmatrix} 14 & 31 \\ 14 & -16 \end{bmatrix}$ $a =$ _____ $b =$ _____

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PROPERTIES Objective E

12. Write $4 \begin{bmatrix} 2 & 8 \\ 2 & -4 \end{bmatrix}$ as a sum of matrices. _____
13. Suppose A is a 2×3 matrix and B is a matrix added to A .
- What are the dimensions of $A + B$? _____
 - Must $A + B = B + A$? _____

USES Objective J

14. The matrices below show the number of books checked out of the school library during two consecutive weeks.

	Nov. 3-7		Nov. 10-14	
	Fiction	Non-Fiction	Fiction	Non-Fiction
Freshmen	476	303	308	352
Sophomores	313	211	366	319
Juniors	416	336	347	288
Seniors	394	510	322	310

- Subtract the left matrix from the right matrix. Call the difference D .
Write matrix D at the right. _____
- What is the meaning of the first column of D ?

- What is the meaning of the entry in row 4, column 2 of D ?

15. The matrix below gives the prices in dollars of some silver school rings. The prices for gold rings are approximately 3 times those for silver. Give the matrix that represents the prices of gold rings.

	Women	Men
Oval	125	185
Antique	135	185
Heritage	135	195

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