

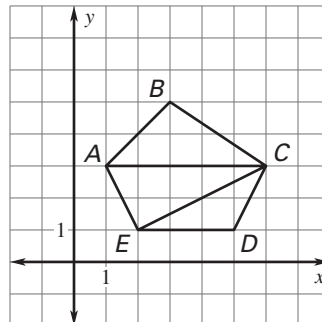
LESSON
9.2**Practice A**

For use with pages 580–587

If you turn this in on time: do the odds.
 If you turn this in late or
 you are doing it over: do the evens.

Use the diagram to write a matrix to represent the polygon.

- $\triangle ABC$
- $\triangle CDE$
- Quadrilateral $ACDE$
- Pentagon $ABCDE$

Teacher
Score: _____

Student
score:
How well
do you feel
you understand
this learning
target:

A
B
C
D
F

Add or subtract.

5. $[2 \ 4] + [6 \ 3]$

6. $\begin{bmatrix} 4 & 1 \\ 5 & 9 \end{bmatrix} - \begin{bmatrix} 3 & 11 \\ 6 & 7 \end{bmatrix}$

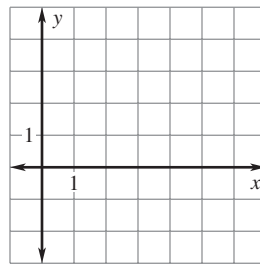
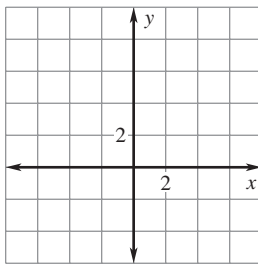
7. $[9 \ -1] - [13 \ 2]$

8. $\begin{bmatrix} 10 & 7 \\ 5 & 3 \end{bmatrix} + \begin{bmatrix} 1 & 8 \\ 2 & 4 \end{bmatrix}$

**Find the image matrix that represents the translation of the polygon.
 Then graph the polygon and its image.**

9. $\begin{matrix} A & B & C \\ \begin{bmatrix} -2 & 0 & 1 \\ 1 & 4 & -3 \end{bmatrix}; & \text{2 units right and} \\ & \text{2 units up} \end{matrix}$

10. $\begin{matrix} D & E & F \\ \begin{bmatrix} 2 & 5 & 4 \\ 3 & 1 & 4 \end{bmatrix}; & \text{2 units down} \end{matrix}$

**Multiply.**

11. $[2 \ 6] \begin{bmatrix} 8 \\ 4 \end{bmatrix}$

12. $\begin{bmatrix} 2 & 6 \\ -5 & 9 \end{bmatrix} \begin{bmatrix} 10 & -4 \\ 3 & -7 \end{bmatrix}$

13. $[11 \ -3 \ 6] \begin{bmatrix} -2 \\ 0 \\ 1 \end{bmatrix}$

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

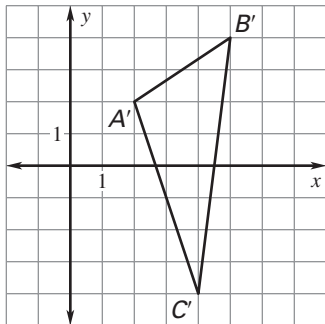
LESSON
9.2**Practice A** *continued*
For use with pages 580–587

- 15. Error Analysis** Describe the error in the computation.

$$\begin{bmatrix} 3 \\ 4 \end{bmatrix} \begin{bmatrix} 2 \\ 1 \end{bmatrix} = [10]$$

- 16.** Use the described translation and the graph of the image to find the matrix that represents the preimage.

5 units right and 2 units up



- 17. Kindergarten** Two kindergarten teachers estimate the number of supplies needed to complete a classroom craft activity. A package of popsicle sticks costs \$4, a bottle of glue costs \$2, and a package of glitter costs \$3.50. Use matrix multiplication to find the total cost each teacher must pay.

Teacher 1
3 packages of popsicle sticks
2 bottles of glue
7 packages of glitter

Teacher 2
4 packages of popsicle sticks
1 bottle of glue
8 packages of glitter

- 18. Tennis** Two tennis teams submit equipment lists. The boys' team needs 16 uniforms and 10 rackets. The girls' team needs 18 uniforms and 13 rackets. A uniform costs \$28 and a racket costs \$34.
- Use matrix addition to find the total number of uniforms and the total number of rackets.
 - Use matrix multiplication to find the total equipment cost for each team.
 - Find the total cost for both teams.