

1. Find $[4 \ 12 \ 6] \begin{bmatrix} 2 & 6 \\ 4 & 2 \\ 4 & 3 \end{bmatrix}$.

[A] $\begin{bmatrix} 24 \\ 96 \\ 42 \end{bmatrix}$

[B] $\begin{bmatrix} 8 & 24 \\ 48 & 24 \\ 24 & 18 \end{bmatrix}$

[C] $[24 \ 96 \ 42]$ [D] $[80 \ 66]$

2. Find $[12 \ 2 \ 1] \begin{bmatrix} 3 & 4 \\ 3 & 11 \\ 3 & 6 \end{bmatrix}$.

[A] $[72 \ 30 \ 9]$

[B] $[45 \ 76]$

[C] $\begin{bmatrix} 36 & 48 \\ 6 & 22 \\ 3 & 6 \end{bmatrix}$

[D] $\begin{bmatrix} 72 \\ 30 \\ 9 \end{bmatrix}$

3. Find $[8 \ 4 \ 7] \begin{bmatrix} 10 & 1 \\ 7 & 10 \\ 12 & 2 \end{bmatrix}$.

[A] $[136 \ 44 \ 98]$

[B] $\begin{bmatrix} 136 \\ 44 \\ 98 \end{bmatrix}$

[C] $\begin{bmatrix} 80 & 8 \\ 28 & 40 \\ 84 & 14 \end{bmatrix}$

[D] $[192 \ 62]$

4. Find $[7 \ 3 \ 8] \begin{bmatrix} 6 & 2 \\ 5 & 6 \\ 10 & 8 \end{bmatrix}$.

[A] $[77 \ 24 \ 144]$

[B] $\begin{bmatrix} 42 & 14 \\ 15 & 18 \\ 80 & 64 \end{bmatrix}$

[C] $\begin{bmatrix} 77 \\ 24 \\ 144 \end{bmatrix}$

[D] $[137 \ 96]$

5. Find $[2 \ 10 \ 3] \begin{bmatrix} 11 & 7 \\ 1 & 4 \\ 8 & 12 \end{bmatrix}$.

[A] $\begin{bmatrix} 24 \\ 110 \\ 60 \end{bmatrix}$ [B] $[24 \ 110 \ 60]$ [C] $[56 \ 90]$ [D] $\begin{bmatrix} 22 & 14 \\ 10 & 40 \\ 24 & 36 \end{bmatrix}$

6. Find $[3 \ 11 \ 5] \begin{bmatrix} 5 & 9 \\ 9 & 8 \\ 7 & 5 \end{bmatrix}$.

[A] $\begin{bmatrix} 42 \\ 187 \\ 60 \end{bmatrix}$ [B] $[149 \ 140]$ [C] $\begin{bmatrix} 15 & 27 \\ 99 & 88 \\ 35 & 25 \end{bmatrix}$ [D] $[42 \ 187 \ 60]$

7. Find $[6 \ 7 \ 12] \begin{bmatrix} 1 & 8 \\ 8 & 5 \\ 2 & 11 \end{bmatrix}$.

[A] $[86 \ 215]$ [B] $\begin{bmatrix} 54 \\ 91 \\ 156 \end{bmatrix}$ [C] $\begin{bmatrix} 6 & 48 \\ 56 & 35 \\ 24 & 132 \end{bmatrix}$ [D] $[54 \ 91 \ 156]$

8. Find $[1 \ 6 \ 10] \begin{bmatrix} 4 & 3 \\ 11 & 9 \\ 1 & 7 \end{bmatrix}$.

[A] $\begin{bmatrix} 4 & 3 \\ 66 & 54 \\ 10 & 70 \end{bmatrix}$ [B] $[15 \ 72 \ 80]$ [C] $[80 \ 127]$ [D] $\begin{bmatrix} 15 \\ 72 \\ 80 \end{bmatrix}$

9. Find $[10 \ 12 \ 9] \begin{bmatrix} 9 & 11 \\ 12 & 7 \\ 5 & 1 \end{bmatrix}$.

[A] $[210 \ 216 \ 54]$ [B] $\begin{bmatrix} 210 \\ 216 \\ 54 \end{bmatrix}$ [C] $[279 \ 203]$ [D] $\begin{bmatrix} 90 & 110 \\ 144 & 84 \\ 45 & 9 \end{bmatrix}$

10. Find $[4 \ 2 \ 11] \begin{bmatrix} 12 & 5 \\ 10 & 12 \\ 6 & 10 \end{bmatrix}$.

[A] $[88 \ 34 \ 176]$ [B] $\begin{bmatrix} 48 & 20 \\ 20 & 24 \\ 66 & 110 \end{bmatrix}$ [C] $[134 \ 154]$ [D] $\begin{bmatrix} 88 \\ 34 \\ 176 \end{bmatrix}$

11. Find $[8 \ 12 \ 11] \begin{bmatrix} 12 & 13 \\ 4 & 8 \\ 3 & 18 \end{bmatrix}$.

12. Find $[1 \ 15 \ 18] \begin{bmatrix} 6 & 11 \\ 18 & 16 \\ 5 & 17 \end{bmatrix}$.

13. Find $[13 \ 19 \ 2] \begin{bmatrix} 11 & 17 \\ 13 & 15 \\ 16 & 12 \end{bmatrix}$.

14. Find $[10 \ 9 \ 7] \begin{bmatrix} 15 & 16 \\ 2 & 12 \\ 17 & 11 \end{bmatrix}$.

15. Find $[19 \ 6 \ 3] \begin{bmatrix} 13 & 1 \\ 9 & 7 \\ 14 & 10 \end{bmatrix}$.

16. Find $[2 \ 17 \ 12] \begin{bmatrix} 5 & 18 \\ 10 & 1 \\ 6 & 14 \end{bmatrix}$.

17. Find $[15 \ 3 \ 10] \begin{bmatrix} 17 & 2 \\ 16 & 3 \\ 19 & 6 \end{bmatrix}$.

18. Find $[17 \ 9 \ 13] \begin{bmatrix} 16 & 12 \\ 4 & 5 \\ 14 & 17 \end{bmatrix}$.

19. Find $[15 \ 1 \ 17] \begin{bmatrix} 4 & 15 \\ 17 & 11 \\ 5 & 12 \end{bmatrix}$.

20. Find $[16 \ 11 \ 19] \begin{bmatrix} 8 & 10 \\ 19 & 18 \\ 1 & 16 \end{bmatrix}$.

21. Let $A = \begin{bmatrix} 1 & 1 \\ 1 & 7 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 7 \\ 0 & -2 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ -1 & -2 \end{bmatrix}$. Find $AC - CB$.

22. Let $A = \begin{bmatrix} 1 & 3 \\ 3 & 1 \end{bmatrix}$, $B = \begin{bmatrix} -5 & 1 \\ 0 & 5 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ -3 & 5 \end{bmatrix}$. Find $AC - CB$.

23. Let $A = \begin{bmatrix} 1 & 5 \\ 5 & 3 \end{bmatrix}$, $B = \begin{bmatrix} 3 & 3 \\ 0 & -3 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ -5 & -3 \end{bmatrix}$. Find $AC - CB$.

24. Let $A = \begin{bmatrix} 1 & 2 \\ 2 & 2 \end{bmatrix}$, $B = \begin{bmatrix} -1 & 2 \\ 0 & 1 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ -2 & 1 \end{bmatrix}$. Find $AC - CB$.

25. Let $A = \begin{bmatrix} 1 & 4 \\ 4 & 4 \end{bmatrix}$, $B = \begin{bmatrix} -4 & 4 \\ 0 & 4 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ -4 & 4 \end{bmatrix}$. Find $AC - CB$.

26. Let $A = \begin{bmatrix} 1 & -3 \\ -3 & 6 \end{bmatrix}$, $B = \begin{bmatrix} 4 & 6 \\ 0 & -4 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ 3 & -4 \end{bmatrix}$. Find $AC - CB$.

27. Let $A = \begin{bmatrix} 1 & -1 \\ -1 & 5 \end{bmatrix}$, $B = \begin{bmatrix} 5 & 5 \\ 0 & -5 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ 1 & -5 \end{bmatrix}$. Find $AC - CB$.

28. Let $A = \begin{bmatrix} 1 & -5 \\ -5 & -8 \end{bmatrix}$, $B = \begin{bmatrix} 1 & -8 \\ 0 & -1 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ 5 & -1 \end{bmatrix}$. Find $AC - CB$.

29. Let $A = \begin{bmatrix} 1 & -2 \\ -2 & -9 \end{bmatrix}$, $B = \begin{bmatrix} 2 & -9 \\ 0 & -2 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ 2 & -2 \end{bmatrix}$. Find $AC - CB$.

30. Let $A = \begin{bmatrix} 1 & -4 \\ -4 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 3 & 2 \\ 0 & -3 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 1 \\ 4 & -3 \end{bmatrix}$. Find $AC - CB$.

31. The band and the cheerleading squad at a local school are ordering supplies. The supplies they need are listed in the table.

| | Paint | Paper | Tape |
|--------------|-------|-------|------|
| Band | 11 | 11 | 4 |
| Cheerleaders | 8 | 15 | 8 |

If a bottle of paint costs \$5, a roll of paper costs \$12, and a roll of tape costs \$2, which of the following shows the use of matrices to find the total cost of supplies for each group?

$$[A] \begin{bmatrix} 11 & 11 & 4 \\ 8 & 15 & 8 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = \begin{bmatrix} 195 \\ 236 \end{bmatrix}$$

$$[B] \begin{bmatrix} 11 & 11 & 4 \\ 8 & 15 & 8 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = [431]$$

$$[C] \begin{bmatrix} 11 & 11 & 4 \\ 8 & 15 & 8 \end{bmatrix} [5 \ 12 \ 2] = \begin{bmatrix} 195 \\ 236 \end{bmatrix}$$

$$[D] \begin{bmatrix} 11 & 11 & 4 \\ 8 & 15 & 8 \end{bmatrix} [5 \ 12 \ 2] = [431]$$

32. The band and the cheerleading squad at a local school are ordering supplies. The supplies they need are listed in the table.

| | Paint | Paper | Tape |
|--------------|-------|-------|------|
| Band | 12 | 12 | 3 |
| Cheerleaders | 10 | 14 | 7 |

If a bottle of paint costs \$5, a roll of paper costs \$12, and a roll of tape costs \$2, which of the following shows the use of matrices to find the total cost of supplies for each group?

$$[A] \begin{bmatrix} 12 & 12 & 3 \\ 10 & 14 & 7 \end{bmatrix} [5 \ 12 \ 2] = [442]$$

$$[B] \begin{bmatrix} 12 & 12 & 3 \\ 10 & 14 & 7 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = \begin{bmatrix} 210 \\ 232 \end{bmatrix}$$

$$[C] \begin{bmatrix} 12 & 12 & 3 \\ 10 & 14 & 7 \end{bmatrix} [5 \ 12 \ 2] = \begin{bmatrix} 210 \\ 232 \end{bmatrix}$$

$$[D] \begin{bmatrix} 12 & 12 & 3 \\ 10 & 14 & 7 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = [442]$$

33. The band and the cheerleading squad at a local school are ordering supplies. The supplies they need are listed in the table.

| | Paint | Paper | Tape |
|--------------|-------|-------|------|
| Band | 10 | 14 | 5 |
| Cheerleaders | 9 | 16 | 9 |

If a bottle of paint costs \$5, a roll of paper costs \$12, and a roll of tape costs \$2, which of the following shows the use of matrices to find the total cost of supplies for each group?

$$[A] \begin{bmatrix} 10 & 14 & 5 \\ 9 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = \begin{bmatrix} 228 \\ 255 \end{bmatrix}$$

$$[B] \begin{bmatrix} 10 & 14 & 5 \\ 9 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = [483]$$

$$[C] \begin{bmatrix} 10 & 14 & 5 \\ 9 & 16 & 9 \end{bmatrix} [5 \ 12 \ 2] = \begin{bmatrix} 228 \\ 255 \end{bmatrix}$$

$$[D] \begin{bmatrix} 10 & 14 & 5 \\ 9 & 16 & 9 \end{bmatrix} [5 \ 12 \ 2] = [483]$$

34. The band and the cheerleading squad at a local school are ordering supplies. The supplies they need are listed in the table.

| | Paint | Paper | Tape |
|--------------|-------|-------|------|
| Band | 11 | 15 | 6 |
| Cheerleaders | 9 | 17 | 8 |

If a bottle of paint costs \$5, a roll of paper costs \$12, and a roll of tape costs \$2, which of the following shows the use of matrices to find the total cost of supplies for each group?

$$[A] \begin{bmatrix} 11 & 15 & 6 \\ 9 & 17 & 8 \end{bmatrix} [5 \ 12 \ 2] = \begin{bmatrix} 247 \\ 265 \end{bmatrix}$$

$$[B] \begin{bmatrix} 11 & 15 & 6 \\ 9 & 17 & 8 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = [512]$$

$$[C] \begin{bmatrix} 11 & 15 & 6 \\ 9 & 17 & 8 \end{bmatrix} [5 \ 12 \ 2] = [512]$$

$$[D] \begin{bmatrix} 11 & 15 & 6 \\ 9 & 17 & 8 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = \begin{bmatrix} 247 \\ 265 \end{bmatrix}$$

35. The band and the cheerleading squad at a local school are ordering supplies. The supplies they need are listed in the table.

| | Paint | Paper | Tape |
|--------------|-------|-------|------|
| Band | 12 | 13 | 4 |
| Cheerleaders | 10 | 16 | 9 |

If a bottle of paint costs \$5, a roll of paper costs \$12, and a roll of tape costs \$2, which of the following shows the use of matrices to find the total cost of supplies for each group?

[A] $\begin{bmatrix} 12 & 13 & 4 \\ 10 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 & 12 & 2 \end{bmatrix} = \begin{bmatrix} 224 \\ 260 \end{bmatrix}$

[B] $\begin{bmatrix} 12 & 13 & 4 \\ 10 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 & 12 & 2 \end{bmatrix} = [484]$

[C] $\begin{bmatrix} 12 & 13 & 4 \\ 10 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = [484]$

[D] $\begin{bmatrix} 12 & 13 & 4 \\ 10 & 16 & 9 \end{bmatrix} \begin{bmatrix} 5 \\ 12 \\ 2 \end{bmatrix} = \begin{bmatrix} 224 \\ 260 \end{bmatrix}$