1. Cheryl asked the players on two mens' and women's softball teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 1 & 3 & 2 \\ 6 & 5 & 0 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 1 & 0 & 2 \\ 3 & 4 & 6 \end{bmatrix}$$

2. Katie asked the players on two mens' and women's football teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 8 & 1 & 2 \\ 4 & 6 & 7 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 3 & 2 & 0 \\ 8 & 4 & 2 \end{bmatrix}$$

3. Nicole asked the players on two mens' and women's soccer teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 0 & 5 & 3 \\ 8 & 1 & 2 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 6 & 9 & 1 \\ 7 & 5 & 8 \end{bmatrix}$$

4. Don asked the players on two mens' and women's football teams what color their new uniforms should be: red, blue, or green. He recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 0 & 7 & 3 \\ 6 & 5 & 8 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array} \begin{array}{ccc} R & B & G \\ \end{array} \begin{bmatrix} 5 & 4 & 8 \\ 7 & 1 & 7 \end{bmatrix}$$

5. Mark asked the players on two mens' and women's baseball teams what color their new uniforms should be: red, blue, or green. He recorded the results in two matrices. Find the total for the two teams.

Team 1

	R	B	G
Men	4	2	1
Women	0	7	3

Team 2

	R	B	G
Men	2	9	6
Women	3	0	4

6. Daryl asked the players on two mens' and women's hockey teams what color their new uniforms should be: red, blue, or green. He recorded the results in two matrices. Find the total for the two teams.

Team 1

	R	B	G
Men	1	4	8
Women	3	6	5

Team 2

	R	B	G
Men	2	0	4
Women	5	8	0

7. Ryan asked the players on two mens' and women's tennis teams what color their new uniforms should be: red, blue, or green. He recorded the results in two matrices. Find the total for the two teams.

Team 1

	R	B	G
Men	2	0	7
Women	1	4	8

Team 2

	R	B	G
Men	3	8	2
Women	5	4	5

8. Mary asked the players on two mens' and women's ski teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

	R	B	G
Men	3	6	5
Women	2	0	7

Team 2

	R	B	G
Men	0	1	6
Women	9	7	6

9. Cheryl asked the players on two mens' and women's softball teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array}\begin{array}{ccc} R & B & G \\ \end{array}\begin{bmatrix} 6 & 0 & 5 \\ 1 & 3 & 7 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array}\begin{array}{ccc} R & B & G \\ \end{array}\begin{bmatrix} 5 & 8 & 1 \\ 2 & 3 & 3 \end{bmatrix}$$

10. Katie asked the players on two mens' and women's soccer teams what color their new uniforms should be: red, blue, or green. She recorded the results in two matrices. Find the total for the two teams.

Team 1

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array}\begin{array}{ccc} R & B & G \\ \end{array}\begin{bmatrix} 8 & 4 & 2 \\ 6 & 0 & 5 \end{bmatrix}$$

Team 2

$$\begin{array}{c} \\ \text{Men} \\ \text{Women} \end{array}\begin{array}{ccc} R & B & G \\ \end{array}\begin{bmatrix} 4 & 6 & 0 \\ 7 & 9 & 9 \end{bmatrix}$$

Perform the indicated operations on the given matrices.

11. $\begin{bmatrix} 7 & 6 & -9 \\ 3 & -7 & -5 \\ 0 & -8 & 4 \end{bmatrix} + \begin{bmatrix} -7 & -6 & 1 \\ 9 & -5 & 2 \\ -9 & 7 & 0 \end{bmatrix}$

[A] $\begin{bmatrix} 0 & 0 & -8 \\ 12 & -12 & 4 \\ -9 & -1 & -3 \end{bmatrix}$

[B] $\begin{bmatrix} 0 & 0 & -8 \\ 12 & -12 & -3 \\ -9 & -1 & 4 \end{bmatrix}$

[C] $\begin{bmatrix} 14 & 12 & -10 \\ -6 & -2 & -7 \\ 9 & -15 & 4 \end{bmatrix}$

[D] $\begin{bmatrix} 14 & 12 & -10 \\ -6 & -2 & 4 \\ 9 & -15 & -7 \end{bmatrix}$

Perform the indicated operations on the given matrices.

12. $\begin{bmatrix} -3 & 5 & 2 \\ -4 & 8 & -6 \\ 9 & -2 & -1 \end{bmatrix} - \begin{bmatrix} -8 & -4 & 8 \\ 6 & -3 & 4 \\ -2 & 3 & 5 \end{bmatrix}$

[A] $\begin{bmatrix} -11 & 1 & 10 \\ 2 & 5 & -2 \\ 7 & 1 & 4 \end{bmatrix}$ 　　　　　　[B] $\begin{bmatrix} 5 & 9 & -6 \\ -10 & 11 & -6 \\ 11 & -5 & -10 \end{bmatrix}$

[C] $\begin{bmatrix} -11 & 1 & 10 \\ 2 & 5 & 4 \\ 7 & 1 & -2 \end{bmatrix}$ 　　　　　　[D] $\begin{bmatrix} 5 & 9 & -6 \\ -10 & 11 & -10 \\ 11 & -5 & -6 \end{bmatrix}$

13. $\begin{bmatrix} 1 & -3 & 3 \\ -1 & -7 & 4 \\ 7 & 9 & -9 \end{bmatrix} + \begin{bmatrix} -1 & -3 & -8 \\ 7 & 3 & -2 \\ 4 & 1 & -4 \end{bmatrix}$

[A] $\begin{bmatrix} 0 & -6 & -5 \\ 6 & -4 & 2 \\ 11 & 10 & -13 \end{bmatrix}$ 　　　　　　[B] $\begin{bmatrix} 0 & -6 & -5 \\ 6 & -4 & -13 \\ 11 & 10 & 2 \end{bmatrix}$

[C] $\begin{bmatrix} 2 & 0 & 11 \\ -8 & -10 & -5 \\ 3 & 8 & 6 \end{bmatrix}$ 　　　　　　[D] $\begin{bmatrix} 2 & 0 & 11 \\ -8 & -10 & 6 \\ 3 & 8 & -5 \end{bmatrix}$

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

[A] $\begin{bmatrix} 2 & -4 & 11 \\ 0 & -1 & 9 \\ 1 & -13 & -11 \end{bmatrix}$ 　　　　　　[B] $\begin{bmatrix} 2 & -8 & -1 \\ 12 & 1 & 7 \\ -9 & -3 & -7 \end{bmatrix}$

[C] $\begin{bmatrix} 2 & -8 & -1 \\ 12 & 1 & -7 \\ -9 & -3 & 7 \end{bmatrix}$ 　　　　　　[D] $\begin{bmatrix} 2 & -4 & 11 \\ 0 & -1 & -11 \\ 1 & -13 & 9 \end{bmatrix}$

Perform the indicated operations on the given matrices.

15.
$$\begin{bmatrix} -5 & -6 & -1 \\ 8 & -5 & -7 \\ -3 & 0 & 9 \end{bmatrix} - \begin{bmatrix} -7 & 9 & 1 \\ 9 & 5 & -3 \\ 2 & 3 & -6 \end{bmatrix}$$

[A] $\begin{bmatrix} 2 & -15 & -2 \\ -1 & -10 & 15 \\ -5 & -3 & -4 \end{bmatrix}$ [B] $\begin{bmatrix} -12 & 3 & 0 \\ 17 & 0 & -10 \\ -1 & 3 & 3 \end{bmatrix}$

[C] $\begin{bmatrix} -12 & 3 & 0 \\ 17 & 0 & 3 \\ -1 & 3 & -10 \end{bmatrix}$ [D] $\begin{bmatrix} 2 & -15 & -2 \\ -1 & -10 & -4 \\ -5 & -3 & 15 \end{bmatrix}$

16.
$$\begin{bmatrix} 1 & 7 & 8 \\ -8 & 6 & -2 \\ -4 & 4 & 3 \end{bmatrix} + \begin{bmatrix} -2 & 4 & 8 \\ 0 & -8 & 6 \\ -1 & -9 & -4 \end{bmatrix}$$

[A] $\begin{bmatrix} -1 & 11 & 16 \\ -8 & -2 & -1 \\ -5 & -5 & 4 \end{bmatrix}$ [B] $\begin{bmatrix} 3 & 3 & 0 \\ -8 & 14 & -8 \\ -3 & 13 & 7 \end{bmatrix}$

[C] $\begin{bmatrix} 3 & 3 & 0 \\ -8 & 14 & 7 \\ -3 & 13 & -8 \end{bmatrix}$ [D] $\begin{bmatrix} -1 & 11 & 16 \\ -8 & -2 & 4 \\ -5 & -5 & -1 \end{bmatrix}$

17.
$$\begin{bmatrix} -9 & 7 & 0 \\ 5 & -6 & -5 \\ 2 & -2 & 2 \end{bmatrix} - \begin{bmatrix} 7 & 7 & 3 \\ -7 & 2 & -3 \\ -5 & -7 & -1 \end{bmatrix}$$

[A] $\begin{bmatrix} -2 & 14 & 3 \\ -2 & -4 & -8 \\ -3 & -9 & 1 \end{bmatrix}$ [B] $\begin{bmatrix} -2 & 14 & 3 \\ -2 & -4 & 1 \\ -3 & -9 & -8 \end{bmatrix}$

[C] $\begin{bmatrix} -16 & 0 & -3 \\ 12 & -8 & -2 \\ 7 & 5 & 3 \end{bmatrix}$ [D] $\begin{bmatrix} -16 & 0 & -3 \\ 12 & -8 & 3 \\ 7 & 5 & -2 \end{bmatrix}$

Perform the indicated operations on the given matrices.

18. $\begin{bmatrix} -4 & -8 & -7 \\ 8 & 1 & -1 \\ -3 & 5 & 4 \end{bmatrix} + \begin{bmatrix} 9 & -8 & -5 \\ 6 & 8 & 0 \\ -4 & -6 & 4 \end{bmatrix}$

[A] $\begin{bmatrix} 5 & -16 & -12 \\ 14 & 9 & 8 \\ -7 & -1 & -1 \end{bmatrix}$ [B] $\begin{bmatrix} 5 & -16 & -12 \\ 14 & 9 & -1 \\ -7 & -1 & 8 \end{bmatrix}$

[C] $\begin{bmatrix} -13 & 0 & -2 \\ 2 & -7 & -1 \\ 1 & 11 & 0 \end{bmatrix}$ [D] $\begin{bmatrix} -13 & 0 & -2 \\ 2 & -7 & 0 \\ 1 & 11 & -1 \end{bmatrix}$

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

[A] $\begin{bmatrix} 8 & 4 & -15 \\ 0 & -16 & -8 \\ 2 & 3 & -11 \end{bmatrix}$ [B] $\begin{bmatrix} 4 & 14 & 3 \\ -18 & -2 & 4 \\ 4 & 5 & -3 \end{bmatrix}$

[C] $\begin{bmatrix} 4 & 14 & 3 \\ -18 & -2 & -3 \\ 4 & 5 & 4 \end{bmatrix}$ [D] $\begin{bmatrix} 8 & 4 & -15 \\ 0 & -16 & -11 \\ 2 & 3 & -8 \end{bmatrix}$

20. $\begin{bmatrix} -5 & 2 & 8 \\ -3 & 9 & 1 \\ -1 & 5 & 7 \end{bmatrix} + \begin{bmatrix} -8 & 2 & -7 \\ -4 & -9 & 0 \\ -1 & 3 & 5 \end{bmatrix}$

[A] $\begin{bmatrix} -13 & 4 & 1 \\ -7 & 0 & 1 \\ -2 & 8 & 12 \end{bmatrix}$ [B] $\begin{bmatrix} -13 & 4 & 1 \\ -7 & 0 & 12 \\ -2 & 8 & 1 \end{bmatrix}$ [C] $\begin{bmatrix} 3 & 0 & 15 \\ 1 & 18 & 2 \\ 0 & 2 & 1 \end{bmatrix}$ [D] $\begin{bmatrix} 3 & 0 & 15 \\ 1 & 18 & 1 \\ 0 & 2 & 2 \end{bmatrix}$

Perform the indicated operations on the given matrices.

21. $\begin{bmatrix} 3 & -2 \\ 7 & 4 \end{bmatrix} + \begin{bmatrix} 6 & -3 \\ 4 & -2 \end{bmatrix}$

[A] $\begin{bmatrix} -3 & 1 \\ 3 & 6 \end{bmatrix}$ [B] $\begin{bmatrix} 9 & -5 \\ 3 & 6 \end{bmatrix}$ [C] $\begin{bmatrix} 9 & -5 \\ 11 & 2 \end{bmatrix}$ [D] $\begin{bmatrix} -3 & 1 \\ 11 & 2 \end{bmatrix}$

22. $\begin{bmatrix} 1 & -1 \\ -3 & 1 \end{bmatrix} + \begin{bmatrix} -2 & -3 \\ 4 & -3 \end{bmatrix}$

[A] $\begin{bmatrix} 3 & 2 \\ -7 & 4 \end{bmatrix}$ [B] $\begin{bmatrix} -1 & -4 \\ -7 & 4 \end{bmatrix}$ [C] $\begin{bmatrix} -1 & -4 \\ 1 & -2 \end{bmatrix}$ [D] $\begin{bmatrix} 3 & 2 \\ 1 & -2 \end{bmatrix}$

23. $\begin{bmatrix} -2 & 4 \\ -6 & 5 \end{bmatrix} + \begin{bmatrix} 8 & 5 \\ 2 & -4 \end{bmatrix}$

[A] $\begin{bmatrix} -10 & -1 \\ -4 & 1 \end{bmatrix}$ [B] $\begin{bmatrix} 6 & 9 \\ -8 & 9 \end{bmatrix}$ [C] $\begin{bmatrix} 6 & 9 \\ -4 & 1 \end{bmatrix}$ [D] $\begin{bmatrix} -10 & -1 \\ -8 & 9 \end{bmatrix}$

24. $\begin{bmatrix} 8 & 8 \\ 3 & -7 \end{bmatrix} + \begin{bmatrix} 6 & -3 \\ 7 & 3 \end{bmatrix}$

[A] $\begin{bmatrix} 14 & 5 \\ -4 & -10 \end{bmatrix}$ [B] $\begin{bmatrix} 2 & 11 \\ 10 & -4 \end{bmatrix}$ [C] $\begin{bmatrix} 14 & 5 \\ 10 & -4 \end{bmatrix}$ [D] $\begin{bmatrix} 2 & 11 \\ -4 & -10 \end{bmatrix}$

25. $\begin{bmatrix} -2 & 3 \\ 8 & 6 \end{bmatrix} + \begin{bmatrix} 6 & 7 \\ 7 & -2 \end{bmatrix}$

[A] $\begin{bmatrix} 4 & 10 \\ 15 & 4 \end{bmatrix}$ [B] $\begin{bmatrix} -8 & -4 \\ 15 & 4 \end{bmatrix}$ [C] $\begin{bmatrix} 4 & 10 \\ 1 & 8 \end{bmatrix}$ [D] $\begin{bmatrix} -8 & -4 \\ 1 & 8 \end{bmatrix}$

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

[A] $\begin{bmatrix} 13 & 2 \\ -11 & -5 \end{bmatrix}$ [B] $\begin{bmatrix} 3 & -8 \\ 3 & -3 \end{bmatrix}$ [C] $\begin{bmatrix} 3 & -8 \\ -11 & -5 \end{bmatrix}$ [D] $\begin{bmatrix} 13 & 2 \\ 3 & -3 \end{bmatrix}$

Perform the indicated operations on the given matrices.

27. $\begin{bmatrix} 6 & 7 \\ -2 & -2 \end{bmatrix} + \begin{bmatrix} -2 & 6 \\ -2 & 3 \end{bmatrix}$

   [A] $\begin{bmatrix} 8 & 1 \\ -4 & 1 \end{bmatrix}$ [B] $\begin{bmatrix} 4 & 13 \\ 0 & -5 \end{bmatrix}$ [C] $\begin{bmatrix} 4 & 13 \\ -4 & 1 \end{bmatrix}$ [D] $\begin{bmatrix} 8 & 1 \\ 0 & -5 \end{bmatrix}$

28. $\begin{bmatrix} -5 & -6 \\ -6 & -6 \end{bmatrix} + \begin{bmatrix} 6 & 7 \\ -6 & 2 \end{bmatrix}$

   [A] $\begin{bmatrix} 1 & 1 \\ 0 & -8 \end{bmatrix}$ [B] $\begin{bmatrix} -11 & -13 \\ 0 & -8 \end{bmatrix}$ [C] $\begin{bmatrix} -11 & -13 \\ -12 & -4 \end{bmatrix}$ [D] $\begin{bmatrix} 1 & 1 \\ -12 & -4 \end{bmatrix}$

29. $\begin{bmatrix} 2 & 5 \\ -3 & -8 \end{bmatrix} + \begin{bmatrix} -7 & 2 \\ -6 & -3 \end{bmatrix}$

   [A] $\begin{bmatrix} -5 & 7 \\ 3 & -5 \end{bmatrix}$ [B] $\begin{bmatrix} 9 & 3 \\ 3 & -5 \end{bmatrix}$ [C] $\begin{bmatrix} 9 & 3 \\ -9 & -11 \end{bmatrix}$ [D] $\begin{bmatrix} -5 & 7 \\ -9 & -11 \end{bmatrix}$

30. $\begin{bmatrix} 4 & -2 \\ -5 & 7 \end{bmatrix} + \begin{bmatrix} -6 & 3 \\ 3 & 4 \end{bmatrix}$

   [A] $\begin{bmatrix} 10 & -5 \\ -2 & 11 \end{bmatrix}$ [B] $\begin{bmatrix} 10 & -5 \\ -8 & 3 \end{bmatrix}$ [C] $\begin{bmatrix} -2 & 1 \\ -8 & 3 \end{bmatrix}$ [D] $\begin{bmatrix} -2 & 1 \\ -2 & 11 \end{bmatrix}$