



1. If $A = \begin{bmatrix} -8 & 1 \\ -6 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 6 \\ 7 & -4 \end{bmatrix}$, then $A+B =$

- (i) $\begin{bmatrix} -7 & 7 \\ 1 & -1 \end{bmatrix}$ (ii) $\begin{bmatrix} -4 & 7 \\ 1 & -2 \end{bmatrix}$ (iii) $\begin{bmatrix} -7 & 7 \\ 1 & -2 \end{bmatrix}$ (iv) $\begin{bmatrix} -7 & 7 \\ 1 & -4 \end{bmatrix}$ (v) $\begin{bmatrix} -8 & 7 \\ 1 & -2 \end{bmatrix}$

2. If $A = \begin{bmatrix} -3 & 8 \\ -3 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} -9 & -9 \\ -5 & -8 \end{bmatrix}$, then $A-B =$

- (i) $\begin{bmatrix} 6 & 17 \\ 2 & 11 \end{bmatrix}$ (ii) $\begin{bmatrix} 6 & 17 \\ 1 & 11 \end{bmatrix}$ (iii) $\begin{bmatrix} 4 & 17 \\ 2 & 11 \end{bmatrix}$ (iv) $\begin{bmatrix} 7 & 17 \\ 2 & 11 \end{bmatrix}$ (v) $\begin{bmatrix} 6 & 17 \\ 5 & 11 \end{bmatrix}$

3. If $A = \begin{bmatrix} 0 & 2 & 1 \\ -1 & -2 & -2 \\ -1 & 0 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 0 & -3 & -3 \\ 2 & -2 & -2 \\ 4 & 3 & 0 \end{bmatrix}$, then $A+B =$

- (i) $\begin{bmatrix} 0 & 0 & -2 \\ 1 & -4 & -4 \\ 3 & 3 & 2 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 & -1 & -2 \\ 1 & -4 & -4 \\ 3 & 3 & 2 \end{bmatrix}$ (iii) $\begin{bmatrix} 0 & -1 & -2 \\ 1 & -4 & -4 \\ 3 & 6 & 2 \end{bmatrix}$ (iv) $\begin{bmatrix} 0 & -1 & -2 \\ 1 & -5 & -4 \\ 3 & 3 & 2 \end{bmatrix}$ (v) $\begin{bmatrix} 0 & -1 & -2 \\ 1 & -4 & -4 \\ 3 & 1 & 2 \end{bmatrix}$

4. If $A = \begin{bmatrix} 0 \\ 1 \\ 1 \end{bmatrix}$ and $B = \begin{bmatrix} 0 \\ -2 \\ 1 \end{bmatrix}$, then $A-B =$

- (i) $\begin{bmatrix} 0 \\ 3 \\ 3 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 \\ 3 \\ -3 \end{bmatrix}$ (iii) $\begin{bmatrix} 0 \\ 4 \\ 0 \end{bmatrix}$ (iv) $\begin{bmatrix} -1 \\ 3 \\ 0 \end{bmatrix}$ (v) $\begin{bmatrix} 0 \\ 3 \\ 0 \end{bmatrix}$

5. If $A = \begin{bmatrix} 0 & 2 & -1 \\ -2 & 2 & 0 \end{bmatrix}$ and $B = \begin{bmatrix} 0 & 0 & 1 \\ -1 & -2 & -1 \end{bmatrix}$, then $A+B =$

- (i) $\begin{bmatrix} 1 & 2 & 0 \\ -3 & 0 & -1 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 & 2 & 0 \\ -3 & -3 & -1 \end{bmatrix}$ (iii) $\begin{bmatrix} 0 & 2 & 0 \\ -3 & 0 & -1 \end{bmatrix}$ (iv) $\begin{bmatrix} 0 & 2 & 0 \\ -3 & 0 & 2 \end{bmatrix}$ (v) $\begin{bmatrix} 0 & 2 & -1 \\ -3 & 0 & -1 \end{bmatrix}$

6. If $A = \begin{bmatrix} -2 \end{bmatrix}$ and $B = \begin{bmatrix} 2 \end{bmatrix}$, then $A+B =$

- (i) $\begin{bmatrix} -3 \end{bmatrix}$ (ii) $\begin{bmatrix} 1 \end{bmatrix}$ (iii) $\begin{bmatrix} 3 \end{bmatrix}$ (iv) $\begin{bmatrix} 0 \end{bmatrix}$ (v) $\begin{bmatrix} -1 \end{bmatrix}$

7. If $A = \begin{bmatrix} -2 & -1 & 2 \\ 3 & 4 & 0 \\ 2 & 1 & -2 \end{bmatrix}$, then $9A =$

- (i) $\begin{bmatrix} -15 & -9 & 18 \\ 27 & 36 & 0 \\ 18 & 9 & -18 \end{bmatrix}$ (ii) $\begin{bmatrix} -18 & -9 & 18 \\ 27 & 36 & 0 \\ 18 & 9 & -18 \end{bmatrix}$ (iii) $\begin{bmatrix} -18 & -9 & 18 \\ 27 & 36 & 0 \\ 15 & 9 & -18 \end{bmatrix}$ (iv) $\begin{bmatrix} -18 & -9 & 18 \\ 27 & 36 & 0 \\ 18 & 8 & -18 \end{bmatrix}$ (v) $\begin{bmatrix} -18 & -9 & 18 \\ 27 & 37 & 0 \\ 18 & 9 & -18 \end{bmatrix}$

8. If $A = \begin{bmatrix} 1 & -1 \\ -4 & 0 \end{bmatrix}$ and $B = \begin{bmatrix} -2 & -4 \\ 3 & 2 \end{bmatrix}$, then $10A + 4B =$

- (i) $\begin{bmatrix} 2 & -26 \\ -28 & 8 \end{bmatrix}$ (ii) $\begin{bmatrix} -1 & -26 \\ -28 & 8 \end{bmatrix}$ (iii) $\begin{bmatrix} 3 & -26 \\ -28 & 8 \end{bmatrix}$ (iv) $\begin{bmatrix} 2 & -23 \\ -28 & 8 \end{bmatrix}$ (v) $\begin{bmatrix} 2 & -26 \\ -29 & 8 \end{bmatrix}$

9. If $A = \begin{bmatrix} 3 & 1 \\ -2 & -2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 4 \\ -3 & 1 \end{bmatrix}$, then $10A - 6B =$

- (i) $\begin{bmatrix} 27 & -14 \\ -2 & -26 \end{bmatrix}$ (ii) $\begin{bmatrix} 24 & -14 \\ -2 & -29 \end{bmatrix}$ (iii) $\begin{bmatrix} 25 & -14 \\ -2 & -26 \end{bmatrix}$ (iv) $\begin{bmatrix} 24 & -14 \\ -2 & -26 \end{bmatrix}$ (v) $\begin{bmatrix} 24 & -14 \\ -3 & -26 \end{bmatrix}$

10. If $A = \begin{bmatrix} 2 & 6 & 2 \\ -5 & -3 & 0 \\ 4 & 3 & 4 \end{bmatrix}$ and $O = \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$, then $A + O =$

- (i) $\begin{bmatrix} 2 & 6 & 2 \\ -5 & -3 & 0 \\ 4 & 4 & 4 \end{bmatrix}$ (ii) $\begin{bmatrix} 2 & 6 & 2 \\ -5 & -3 & 0 \\ 4 & 3 & 4 \end{bmatrix}$ (iii) $\begin{bmatrix} 2 & 6 & 2 \\ -5 & -3 & 0 \\ 6 & 3 & 4 \end{bmatrix}$ (iv) $\begin{bmatrix} 2 & 6 & -1 \\ -5 & -3 & 0 \\ 4 & 3 & 4 \end{bmatrix}$ (v) $\begin{bmatrix} 2 & 6 & 2 \\ -5 & -3 & 0 \\ 4 & 2 & 4 \end{bmatrix}$

11. If $A = \begin{bmatrix} -6 & 4 \\ -5 & -9 \end{bmatrix}$, $B = \begin{bmatrix} 5 & -7 \\ -2 & -1 \end{bmatrix}$ and $C = \begin{bmatrix} 0 & -8 \\ 0 & 5 \end{bmatrix}$,
then $10A - 7B + 9C =$

- (i) $\begin{bmatrix} -93 & 17 \\ -36 & -38 \end{bmatrix}$ (ii) $\begin{bmatrix} -95 & 17 \\ -36 & -38 \end{bmatrix}$ (iii) $\begin{bmatrix} -95 & 17 \\ -36 & -37 \end{bmatrix}$ (iv) $\begin{bmatrix} -95 & 17 \\ -36 & -40 \end{bmatrix}$ (v) $\begin{bmatrix} -96 & 17 \\ -36 & -38 \end{bmatrix}$

12. Find A , given that $A + 6 \begin{bmatrix} 1 & -8 \\ -3 & 9 \end{bmatrix} = \begin{bmatrix} -2 & -42 \\ -25 & 62 \end{bmatrix}$

- (i) $\begin{bmatrix} -8 & 6 \\ -6 & 8 \end{bmatrix}$ (ii) $\begin{bmatrix} -6 & 6 \\ -7 & 8 \end{bmatrix}$ (iii) $\begin{bmatrix} -8 & 6 \\ -7 & 8 \end{bmatrix}$ (iv) $\begin{bmatrix} -8 & 5 \\ -7 & 8 \end{bmatrix}$ (v) $\begin{bmatrix} -10 & 6 \\ -7 & 8 \end{bmatrix}$

13. If $A = \begin{bmatrix} -1 & 1 \\ -5 & -6 \end{bmatrix}$, then find B satisfying $A + B = O$

- (i) $\begin{bmatrix} 2 & -1 \\ 5 & 6 \end{bmatrix}$ (ii) $\begin{bmatrix} -1 & -1 \\ 5 & 6 \end{bmatrix}$ (iii) $\begin{bmatrix} 4 & -1 \\ 5 & 6 \end{bmatrix}$ (iv) $\begin{bmatrix} 1 & -1 \\ 4 & 6 \end{bmatrix}$ (v) $\begin{bmatrix} 1 & -1 \\ 5 & 6 \end{bmatrix}$

14. If $A = \begin{bmatrix} 4 & -2 \\ 0 & -1 \end{bmatrix}$, then find B satisfying $A + B = I$

- (i) $\begin{bmatrix} -2 & 2 \\ 0 & 2 \end{bmatrix}$ (ii) $\begin{bmatrix} -3 & -1 \\ 0 & 2 \end{bmatrix}$ (iii) $\begin{bmatrix} -3 & 2 \\ 0 & 2 \end{bmatrix}$ (iv) $\begin{bmatrix} 0 & 2 \\ 0 & 2 \end{bmatrix}$ (v) $\begin{bmatrix} -3 & 1 \\ 0 & 2 \end{bmatrix}$

15. If $A = \begin{bmatrix} 4 & -3 \\ 8 & 4 \end{bmatrix}$, then find B satisfying $A + B = A$

- (i) $\begin{bmatrix} 2 & 0 \\ 0 & 0 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$ (iii) $\begin{bmatrix} -3 & 0 \\ 0 & 0 \end{bmatrix}$ (iv) $\begin{bmatrix} 0 & 0 \\ -1 & 0 \end{bmatrix}$ (v) $\begin{bmatrix} 0 & 1 \\ 0 & 0 \end{bmatrix}$

16. If $(A+B) = 0$, then

- a) B is the additive inverse of A
- b) A is the additive identity of B
- c) A is the additive inverse of B
- d) B is the additive identity of A

(i) $\{b,a\}$ (ii) $\{b,c,a\}$ (iii) $\{d,c\}$ (iv) $\{a,c\}$ (v) $\{b,d,a\}$

17. If $A = \begin{bmatrix} 7 & 7 \\ 3 & -7 \end{bmatrix}$ and $B = \begin{bmatrix} 0 & -6 \\ -9 & -9 \end{bmatrix}$ and $D = \begin{bmatrix} 133 & 91 \\ 156 & -16 \end{bmatrix}$,

$10A - 8B + 9C = D$, then $C = ?$

- (i) $\begin{bmatrix} 6 & -3 \\ 6 & -2 \end{bmatrix}$ (ii) $\begin{bmatrix} 7 & -3 \\ 7 & -2 \end{bmatrix}$ (iii) $\begin{bmatrix} 7 & -3 \\ 6 & -2 \end{bmatrix}$ (iv) $\begin{bmatrix} 9 & -3 \\ 6 & -2 \end{bmatrix}$ (v) $\begin{bmatrix} 7 & -3 \\ 4 & -2 \end{bmatrix}$

18. If $A = \begin{bmatrix} -5 & 3 \\ 5 & -8 \end{bmatrix}$ and the sum of the values of

elements of matrix $kA = -45$, find k

- (i) 12 (ii) 10 (iii) 7 (iv) 9 (v) 8

19. If $A = \begin{bmatrix} 5 & 5 \\ 1 & -2 \end{bmatrix}$, the value of $-A =$

- (i) $\begin{bmatrix} -5 & -6 \\ -1 & 2 \end{bmatrix}$ (ii) $\begin{bmatrix} -5 & -4 \\ -1 & 2 \end{bmatrix}$ (iii) $\begin{bmatrix} -5 & -5 \\ -1 & 0 \end{bmatrix}$ (iv) $\begin{bmatrix} -5 & -2 \\ -1 & 2 \end{bmatrix}$ (v) $\begin{bmatrix} -5 & -5 \\ -1 & 2 \end{bmatrix}$

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

then $A + 3B + 9C =$

- (i) $\begin{bmatrix} -90 & 13 \\ 54 & 38 \end{bmatrix}$ (ii) $\begin{bmatrix} -93 & 13 \\ 54 & 38 \end{bmatrix}$ (iii) $\begin{bmatrix} -93 & 12 \\ 54 & 38 \end{bmatrix}$ (iv) $\begin{bmatrix} -92 & 13 \\ 54 & 38 \end{bmatrix}$ (v) $\begin{bmatrix} -95 & 13 \\ 54 & 38 \end{bmatrix}$

21. Find the additive identity of matrix $A = \begin{bmatrix} -8 & -7 \\ -2 & -8 \end{bmatrix}$

- (i) $\begin{bmatrix} 0 & 0 \\ 3 & 0 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$ (iii) $\begin{bmatrix} 0 & 0 \\ -1 & 0 \end{bmatrix}$ (iv) $\begin{bmatrix} -3 & 0 \\ 0 & 0 \end{bmatrix}$ (v) $\begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix}$

22. Find the additive identity of matrix $A = \begin{bmatrix} -1 & -3 & 0 \\ -2 & -2 & 4 \\ 1 & 3 & 3 \end{bmatrix}$

- (i) $\begin{bmatrix} 0 & -3 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ (ii) $\begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ (iii) $\begin{bmatrix} 0 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ (iv) $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ (v) $\begin{bmatrix} 0 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$

Assignment Key

1) (iii)	2) (i)	3) (ii)	4) (v)	5) (iii)	6) (iv)
7) (ii)	8) (i)	9) (iv)	10) (ii)	11) (ii)	12) (iii)
13) (v)	14) (iii)	15) (ii)	16) (iv)	17) (iii)	18) (iv)
19) (v)	20) (ii)	21) (ii)	22) (ii)		